

SANGĪTA-RATNĀKARA

OF
↓

ŚĀRNGADEVA

Sanskrit Text and English Translation with Comments and Notes

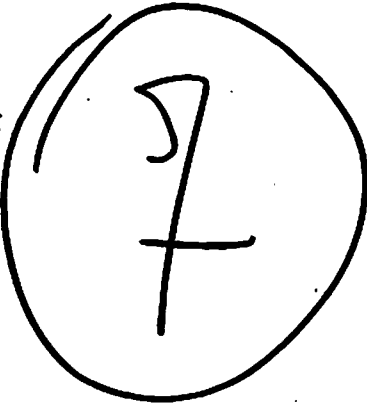
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Vol. I
TREATMENT OF SVARA

मना प्रो मन्त्रो

English Translation by
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PREFACE

I was inspired to undertake the present project of translating *Saṅgītaratnākara* into English by two factors viz. the inadequacy of the available English translation of the 1st chapter by C. Kunhan Raja, and the education and training that I received from Dr. (Miss) Premlata Sharma, Head of the Department of Musicology, Banaras Hindu University, while I was her student for Diploma in Music Appreciation during 1967-69. Even though the textual study of *Saṅgītaratnākara* was not, strictly speaking, a part of the curriculum, she was kind and generous enough to recognise the special position of some of the students, who were also the members of the staff of the department, and to extend to them the benefit of her wide learning and research experience by way of initiating them into the art of interpreting original Sanskrit texts on music with the help of available commentaries, and luckily I was one of them. So, even though I had been working as Research Assistant in the Department of Musicology and in the College of Music & Fine Arts prior to the formation of the department in 1966, for about ten years or so, Sanskrit texts on music could become meaningful to and enjoyable for me only after I could avail of this opportunity of learning the intricacies, the technicalities and the symbolism of the language of *Saṅgīta-śāstra* from Dr. Sharma. Hence, the need for a music-oriented, topic-wise, technically precise English translation of *Saṅgīta-ratnākara* written in a flowing prose style unhindered by frequent Sanskrit interjections and accompanied by an elaborate and lucid commentary, was felt by me not as a scholar of Sanskrit but as a student of Musicology. A detailed note on the method and the manner of the translation has been written separately pointing out the peculiarities of the execution of the work.

In 1970, the University Grants Commission introduced a scheme of writing university level books and monographs,

and I took the earliest opportunity of putting forth a proposal of writing an English translation of *Saṅgīta-ratnākara* in three parts related to music (i. e. excluding the chapter on dancing) under the expert guidance and supervision of Dr. (Miss) Prem Lata Sharma who readily agreed to sponsor the proposal. And the U. G. C. too was kind and gracious enough to grant me a Research Fellowship for three years to undertake this project.

I am happy to say that as the result of the combined efforts of the U.G.C., which provided me the material means to pursue my researches and writing unhindered, the authorities of the Banaras Hindu University who granted me leave to work on the project, and Dr. Prem Lata Sharma who has very affectionately, very carefully and very meticulously nursed the whole product, and Messrs. Motilal Banarsidass, who readily agreed to publish this work, it has become possible for me to present this first volume comprising Chapter I related to the treatment of *svara*, in the service of the learned scholars and the learning students; and I hope it will be found to be of greater help in understanding Śārṅga-deva, whose work *Saṅgīta-ratnākara* is a landmark in the history of *Saṅgīta-śāstra*.

Though the translation was originally planned and written out with an elaborate commentary and critical as well as literary annotations with a view to making it self-sufficient, it has been considered necessary, convenient and useful to give the Sanskrit text as well along with it. This was considered necessary firstly because the translation is presented in a topic-wise order dealing with homogeneous ideas and concepts in convenient paragraphs in order to make the reading more intelligible and easy to grasp, and secondly because it was found unavoidable to modify some of the readings of the text as published by the Adyar Library in view of the technical accuracy of the readings available in the Anandāśrama edition or other comparable texts like *Saṅgītarājā* of Rānā Kumbha and so on. Thus, the Sanskrit

text has also been partly re-edited in so far as the arrangement of some of the verses has been modified to correspond with the paragraphs as arranged in the translation and also in so far as some modifications have also been made in the text here and there, though very sparingly.

The present project envisages the translation of six out of the seven chapters of *Saṅgīta-ratnākara* divided as follows :

Volume I : Chapter I

Volume II : Chapters II to IV

Volume III : Chapters V & VI

I am happy to disclose that the Ms. of Vol. II is also almost ready. It will not be before long that it is presented for publication, while work on Volume III as well is in progress.

It is not for me to say that the task of translating *Saṅgīta-ratnākara* (Vol. I), that I had set to myself quite unwittingly in my enthusiasm for doing something worthwhile, could hardly be accomplished by me single-handed, since it not only demands great proficiency in Sanskrit and English languages but also an insight into the musical concepts of *Saṅgīta-śāstra*, and besides the publication of such a work naturally involves co-operation of many able workers. I am, therefore, greatly indebted to my seniors and friends who have lovingly rendered every possible help in bringing the work upto the mark, though here I can make notable mention only of those few but for whose contribution this work could not have been published in its present form.

I do not find any words indeed to adequately acknowledge the contribution of Dr. (Miss) Premlata Sharma under whose expert advice and able supervision the whole work has been executed and who, out of her love for learning, voluntarily offered to write an introduction to the translation. In fact, whatever I have been able to do is primarily because of her, since without her initiation and continued co-operation, nothing could have been finally accomplished. I am

also greatly thankful to Mr. N. Ramanathan, Research Scholar of the Deptt. of Musicology, B. H. U. and presently, Lecturer in Musicology, Indirā Saṅgīta Vishvavidyālaya, Khairagarh, who has been kind enough to go through my press-copy including the index, and has offered many valuable comments and suggestions to improve the translation in its form and content. He has also been kind enough to go through the printed file and much of the credit for the preparation of errata goes to him.

Since *Saṅgīta-ratnākara* incorporates a chapter on human embodiment (*Piṇḍotpatti*), which indeed is a unique feature of Śārṅgadeva's work, (and he could possibly attempt it because he was himself a medical man as stated by him), special care has been taken in preparing the translation and the commentary as well as the notes of this chapter; and I am extremely grateful to Prof. Priyavrata Sharma, Head of the Deptt. of Dravyaguṇa in the Instt. of Medical Sciences, B. H. U., who has been kind enough to go through the Ms. of the whole chapter and suggest some technical modifications. I am also thankful to Dr. K. C. Gangrade, formerly Reader in Anatomy in the Institute of Medical Sciences and presently Reader in Sitar in the Department of Instrumental Music, B. H. U., who has also been kind enough to glance through this chapter and to offer some technical suggestions for the improvement of the draft translation.

My thanks are due to Shri Ritwik Sanyal, a research scholar of the Deptt. of Musicology, for assisting in the preparation of the Press-copy of the Ms. Many thanks are due to Shri Gopal Lal Bhatt and Pandit Maheshwar Jha, Assistants of the Research Section of the Deptt. of Musicology for assisting in proof-reading and the preparation of the Śloka-index respectively. Also I am thankful to Shri Kapildeo Giri for assisting in writing the Ms. of the Sanskrit text and Shri Chhannulal, Senior Clerk of the Deptt. for typing the Ms. and the Press-copy of the work neatly. I am also thankful to Shmt. Vimla Musalgaonkar, the Sanskrit teacher

of the Deptt. of Musicology, for her constant moral support and encouragement in the accomplishment of the difficult task.

Above all, I am grateful to the University Grants Commission for granting a Research Fellowship for this project and thus providing the initial impetus to this publication.

Our thanks are also due to the publishers of this book, Motilal Banarsidass for readily accepting the work of publication and for seeing it through the press expeditiously. Last but not the least, I am thankful to Tara Printing Works, Varanasi, for providing every facility for printing the work in the desired manner and in a short period of time.

Dated 17.11.1977
Deptt. of Musicology,
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R. K. Shringy

A NOTE ON TRANSLATION

The present English translation of *Saṅgīta-ratnākara* of Śārngadeva is based on the Adyar edition of the Sanskrit text published by the Adyar Library and Research Centre of the Theosophical Society, Madras in 1943. The text has almost entirely been adopted from that edition excepting a few places where the readings were not found to be technically significant and relevant to the context, and where sometimes the readings of the Ānandāshrama (Poona) edition (edited by Shri Maṅgesh Ramakrishna Telaṅga) are found to be more meaningful; though, that edition has been referred to only in very exceptional cases only and not as a general rule. Apart from these two editions of *Saṅgīta-ratnākara* no other edition or Ms. has been consulted in preparing this translation, probably because it was not considered within the scope of a translator's work to do so.

When the project of translating this monumental work of *Saṅgīta-śāstra* was taken up in 1972, there were quite a few translations available in English, Hindi, Telugu, Kannaḍa and so on, most of them fragmentary. However, even though they were available, none of them was noticed by the author till the first draft of the work was nearly completed so far as this volume is concerned. But by and by the following works were noticed.

- (i) *Saṅgīta-ratnākara* (Part—I), Hindi translation by Shri Lakshminarayana Garg, Saṅgīta-kāryālaya Hathras, 1964 (consists of Chapter I only)
- (ii) Telugu translation of the first chapter with that of Kallinātha's commentary in an appendix, by Gandam Sri Ramamurti published by the Saṅgīta Nāṭak Akademi, Andhra Pradesh, Kalā Bhawan, Hyderabad—4, in 1966.
- (iii) Kannaḍa translation of the first three sections of Chapter—I with a commentary (also in Kannaḍa)

called Niḥśaṅka-hṛdaya by Prof. R. Sathyanarayana, published by Prasaraṅga, Mysore University, 1968.

- (iv) English translation of Chapter I by C. Kunhan Raja from Adyar Library, Madras, 1945.
- (v) English translation of Chapter VII on Dancing by K. Kunjuni Raja and Radha Burnier, first published in Vol. XXIII parts 3 & 4 of Adyar Library Bulletin, Brahma Vidya, 1959. This has been reprinted in 1976.

Excepting C. Kunhan Raja's English translation, no other work could possibly be consulted by the author (i. e. the present translator). It has been beneficial to consult this translation since some of the charts have been adopted from it with some modification. Another work published in 1975 was noticed as under.

- (vi) Marathi translation of chapters I to IV along with the translation of Kallinātha's commentary by G. H. Tarlekar published by Maharashtra Rajya Sahitya Sanskriti Mandal, Bombay—32 in 1975.

The author of this work plans to complete the Marathi translation of the entire *Saṅgīta-ratnākara* in his 2nd and 3rd Volumes on which he is presently working. Any other translations of this work, if available, have not yet been noticed.

The present English translation is executed in quite a different manner. First of all, the translation does not follow the traditional *śloka*-wise order, rather it is presented in convenient paragraphs that naturally comprehend a complete idea or expound it conceptually. The *śloka*-wise translations may be suitable for literature but so far as technical works, as this, are concerned, they hardly make any clear and lucid presentation so that, more often than not, the subject

matter is either confused or distorted. Therefore, in order to make the translation more intelligible to the modern intellect, the entire work has been further classified into many subdivisions according to the different topics. Thus, it is probably for the first time that the Sanskrit text as well as its English translation are being presented in the modern literary format. Accordingly the Sanskrit text has also been provided with suitable headings and sub-headings.

The general order of presentation is such that the text in Sanskrit is immediately followed by translation which in its turn is followed by the comments, and the comments are followed by notes, all of which run concurrently as far as possible. The substance of the two Sanskrit commentaries of Kallinātha and Sīṃhabhūpāla as printed in the Adyar edition of *Sahgīta-ratnākara* has generally been incorporated in comments as much as it has been found possible in consonance with the modern style of presentation. However, the purpose of writing the comments is not merely to represent all that is useful in the Sanskrit commentaries, but to make the translation and the subject matter of the text easily intelligible and accessible to an average reader of a musicological text. The comments, in other words, actually constitute a running commentary on the text, comprehending most of the developments in the field since the Sanskrit commentaries were written. The notes are written mostly on the English rendering of the text and are more of a literary nature, while the comments are generally more concerned with the technical exposition of the subject matter.

The *Śloka-s* of the text have been divided into four parts called a, b, c & d, roughly representing the four quarters of a verse, and since the translation presented here follows a topic-wise arrangement, the paragraph and other topic headings are indicated in terms of *Śloka* numbers suffixed with a, b, c and d (as the case may be) to cover the entire range of the topic or the paragraph.

While writing Sanskrit words in Roman script, international diacritical marks are applied. These symbols are indicated here in a separate transliteration code.

With regards to translating technical terms from Sanskrit to English, as a matter of principle, every effort has been made to translate or to give English equivalents whenever possible, but exception is made with respect to certain concepts that have no parallel in Western music e. g. *grāma*, *mūrccānā*, *tāla* and so on, that are retained in their original form. However, even in such cases, an approximate English equivalent has been provided into brackets, at least for the first time, if not every time the word is used, e. g. *jāti* (melodic type). Sometimes the English equivalents are thought to be unconventional, and in such cases the original Sanskrit terms are similarly provided into parenthesis e. g. tone-pattern (*varṇa*). This policy has been executed as far as it has been possible to do so intelligently.

The translation presented here is quite authentic, as near in interpretation to the original text as the English idiom makes it possible. Even though a *śloka*-wise presentation is not made, every paragraph is truly represented by the verse Nos. indicated at the end of the paras, while the range of the topic is indicated by the verse Nos. at the end of the topic-headings. The words that have been supplied due to grammatical necessity of the English expression have generally been put into brackets, so much so that expository or complementary phrases implied in the original text are also similarly indicated. However, every care has been taken not to make the translation too literal, at the cost of presentable diction, lucidity of expression, or technical meaning. Plurals made out of Skt. words are distinctly indicated by a hyphen e. g. *grāma-s*. So, in short an attempt has been made to present a faithful, authentic, liberal and a clear English translation of the original Sanskrit text couched in a language that can be easily understood by the students as well as the scholars of *sahgīta-śāstra* alike.

The translation is accompanied by three appendices for different specialists; and also a glossary-cum-index is provided wherein the various technical terms are very briefly elucidated. A half verse line index too is added to provide a guide to the text.

It is hoped that this work will prove to be a useful aid to those scholars and students who are not so well conversant with Sanskrit as to approach the text directly.

TRANSLITERATION CODE

| Devanāgarī script | Roman script |
|---|--|
| 1. Vowels : | |
| (a) short—अ इ उ ऋ ए | a, i, u, r, lṛ |
| (b) long—आ ई ऊ | ā, ī, ū, |
| (c) diphthongs—ए ऐ ओ औ | e, ai, o, au |
| (d) anusvāra—ँ & visarga—ः | m̄ & ḥ |
| 2. Consonants : | |
| (i) Gutturals—क ख ग घ ङ | k, kh, g, gh, ṅ |
| (ii) Palatals—च छ ज झ ञ | c, ch, j, jh, ñ |
| (iii) Linguals—ट ठ ड ढ ण | t, ṭh, ḍ, ḍh, ṇ |
| (iv) Dentals—त थ द ध न | t, th, d, dh, n |
| (v) Labials—प फ ब भ म | p, ph, b, bh, m |
| Semivowels—य र ल व | y, r, l, v |
| Sibilants—श ष स | ś, ṣ, s |
| Sonant aspirate—ह | h |
| Metrical symbols : | Tonal symbols : |
| (i) <i>laghu</i> —I short | <i>Ṣadja</i> sa <i>Madhyama</i> ma |
| (ii) <i>guru</i> —S long | <i>Rṣabha</i> ri <i>Pañcama</i> pa |
| (iii) <i>pluta</i> —Ś prolonged or elongated | <i>Gāndhāra</i> ga <i>Dhāivata</i> dha <i>Niṣāda</i> ni |

LIST OF ABBREVIATIONS.

| | |
|-----------------|---|
| Abh. Bh. | Abhinava-bhāratī, Abhinavagupta's commentary on N. S. |
| Ad. ed. | Adyar edition of <i>Saṅgīta-ratnākara</i> |
| Bh. G. | <i>Bhagavadgītā</i> |
| Br. D. | <i>Bṛhaddeśī</i> of Mātāṅga |
| Caraka | <i>Caraka saṁhitā</i> |
| Chap. | Chapter |
| Eng. | English |
| Eng. trans. | English translation of N. S. by Shri Manmohan Ghosh M. Ghosh |
| G. O. S. | Gayakwad Oriental Series, Baroda |
| I. M. J. | Indian Music Journal |
| J. R. A. S. | Journal of Royal Asiatic Society |
| 'K' | Kallinātha |
| Kashi or K ed. | Kashi (Chowkhambha) edition of N. S. |
| K. K. | Kavirāj Kunjala Bhisagrātna, the English translator of <i>Suśruta</i> |
| K. R. | Kunhan Rāja, author of the Eng. translation of S. R. Chapt. I published from Adyar, Madras. |
| Lit. | Literally. |
| N. S. | <i>Nāṭyaśāstra</i> of Bharata |
| N. S., G. O. S. | <i>Nāṭyaśāstra</i> , Gayakwad Oriental Series, Baroda Edition |
| P. L. S. | Dr. (Miss) Prem Lata Sharma |
| Rv. | <i>R̥gveda</i> |
| 'S' | <i>Siṁhabhūpāla</i> |
| Skt. | Sanskrit |
| S. R. | <i>Saṅgīta-ratnākara</i> of Śārīngadeva |
| S. Rāj | <i>Saṅgīta-rāja</i> of Rāṇā Kumbhā |
| Suśruta | <i>Suśruta Saṁhitā</i> |
| Tr. | Translation |

INTRODUCTION

I. Prefatory Remarks

If one were to name a single text of *Saṅgīta-śāstra* which embodies the earlier tradition (*lakṣaṇa*, body of terms and concepts) in remarkable detail and at the same time incorporates contemporary developments, which has been constantly referred to in musical and literary texts in the subsequent centuries, which has been commented upon profusely¹, which has not only been looked upon with awe and reverence, but has also occasionally been the target of reproach born of frustration, which wielded great influence over later tradition, one would undoubtedly name the *Saṅgīta-ratnākara* (hereafter referred to as S. R.) of Śārṅgadeva.

S. R. has been known as *saptādhyāyī*² on the model of Pāṇini's *Aṣṭādhyāyī* and has for at least six centuries symbolised the ancient tradition of *lakṣaṇa*. Earlier texts do not appear to have been directly studied by most of the authors of *lakṣaṇa* in the subsequent centuries. Keen interest in the direct studies of earlier works like Bharata's *Nāṭyaśāstra*, Dattila's *Dattilam*, Maṭaṅga's *Bṛhaddeśī*, Abhinavagupta's *Abhinavabhāratī*, Someśvara's *Mānasollāsa* and Nānyadeva's *Bharatabhāṣya*, has emerged only in the latter half of the 20th. century and S. R. has served as a constant frame of reference in this study. Hence S. R. has re-emerged as a landmark in *Saṅgīta-śāstra*, illuminating its ancient and medieval tradition like a *Dehali-pradīpa*³.

1. The latest commentary, 'Setu' of Gaṅgārāma was composed as recently as the 19th century.
2. cf. S. Sud, p. 152 sl. 407. Sahasras (a compilation, made in the 17th. century of *dhrupad* texts ascribed to Bakshoo of the 15th. century), song-text no. 188, 400, 479, 958.
3. A lamp on the threshold of a room illuminating both inside and outside.

2. Date and Identity of the Author

Śārṅgadeva introduces himself as belonging to a family which hailed from Kashmir. Kashmir is the glorious land of Sanskrit learning that dominated for centuries the various branches of study; the land that gave birth to a versatile genius like Abhinavagupta preceded by a host of commentators¹ on N.S. and Ānandavardhana, Mātṛgupta, Mammaṭa etc. Śārṅgadeva must have inherited from his father and grandfather the rich tradition of various disciplines. He must also have been acquainted with the *lakṣya* of Kashmir indirectly and with that of the Deccan, where the family settled, directly. In a way the entire *śāstra* (source of theoretical knowledge) and *sampradāya* (practical tradition) of the earlier periods must have been accessible to him.

In Deccan, the family lived under the patronage of the Yādava dynasty at Devagiri (present Daulatabad).² This dynasty was formally established by King Bhillama in 1145 A. D. It is during his reign that Śārṅgadeva's grandfather Bhāskara appears to have shifted from Kashmir to Devagiri. One wonders what could have prompted Bhāskara to leave his motherland and move to a distant foreign region. Was it the political persecution which forced him to flee and seek refuge in the other end of the land? Or was it the special patronage extended by the prince of a distant land to him because of his fame that attracted him to the Yādava court? P. V. Sharma feels that although there is no conclusive evidence, it may be that the King of Devagiri, impressed by Bhāskara's scholarship in *Āyurveda*, invited him to his court as

1. Their works are lost today.
2. Sources for the historical details are :—
 - (a) Bhāratīya Vidyābhavan's The History and Culture of the Indian People, Vol. V.
 - (b) Śārṅgadeva's own account regarding his genealogy and other details in the first *prakaraṇa* of the first chapter of S. R.
 - (c) P. V. Sharma's paper in Hindi—"Yādava Kings, the Great Patrons of *Āyurveda* in the Medieval Times."

a royal physician. Besides, Bhāskara's son Soḍhala was also appointed the Accountant General (*Śrīkaraṇāgrānti*) in King Bhillama's court.

King Bhillama died in 1193 A. D. His son Jaitrapāla or Jaitugi ascended the throne and ruled for a short period. He was succeeded by Siṅghaṇa in 1200 A. D. who was not only a very powerful king but also a great patron of arts, literature, and science. It is during his reign that Śārṅgadeva who continued in his father's (Soḍhala's) post as the Royal Accountant, seems to have composed his works. Having had great scholars for his ancestors, Śārṅgadeva's heredity must have provided him with a very rich 'saṁskāra-puñja' (cultural heritage) combining the northern or north-western and southern traditions in learning and arts. Along with his study of *Saṅgīta* he appears to have carried on the family profession of *Āyurveda*. He had also written a book on *Āyurveda* entitled '*Adhyātmaviveka*' to which he himself refers.¹ This work is not available. Besides this and S. R. no other work of Śārṅgadeva is known.

Śārṅgadeva refers to himself as one who has removed distress of the Brahmins through gifts of large wealth, of those desirous of learning through knowledge, and of the sick through medicines².

घनदानेन विप्राणामातिं संहृत्य शाश्वतीम् ।
जिज्ञासूनां च विद्याभिर्गंदार्तानां रसायनेः ॥

This verse in a way sums up the three facets of Śārṅgadeva's life viz. the accountant, the scholar, and the physician.

Some of the verses³ in the introductory Section of S. R. giving an account of the genealogy seem to be lavishing praises on the author himself and his ancestors which to a modern reader may appear immodest. But that was,

1. S. R. 1,2,119.
2. *ibid.* 1,1,12cd-13ab.
3. *ibid.* 1,1, 2-14.

however, part of the culture of his period and was not regarded improper then. On the other hand, the verses at the conclusion of the work¹ are full of humility and modesty.

3. Patronage of Āyurveda in Yādava Dynasty

Scholarship in *Āyurveda* was confined not only to Śārṅgadeva's family. History reveals a host of Āyurvedic scholars who lived under the patronage of the Yādava Kings. Furthermore, these scholars were also intimately connected with Śārṅgadeva's family, for many of them were students of Bhāskara, Śārṅgadeva's grandfather. In fact it is only through the works of some of these scholars that we come to know of Bhāskara as a great name in *Āyurveda*; Śārṅgadeva himself does not give any clear indication. P. V. Sharma has ably brought out in his paper², the role of the Yādava Kings in the promotion of *Āyurveda* and the contribution of Bhāskara and other scholars.

Nāgārjuna, the author of *Yogaratanamālā* commences his work with a salutation to his guru Bhāskara. Keśava, in the concluding verses of his work *Siddhamantra*, describes himself as the disciple of Bhāskara in *Āyurveda* and as the recipient of Siṁharāja's (Siṅghaṇa's) patronage. Though Bhāskara himself lived during King Bhillama's reign, his students continued upto King Siṅghaṇa's reign. It is the reign of King Siṅghaṇa which seems to have been the golden period in which not only *Āyurveda* but also all the arts and literature flourished. Many of the Ayurvedic preparations were named after Siṅghaṇa, e. g. *Siṅghaṇa-cūrṇa* Siṅghaṇa himself seems to have had knowledge of *Āyurveda* since a few of the preparations are credited to him.

Soḍhala, the author of two works on *Āyurveda*—*Gadani-graha* and *Soḍhalanighaṇṭu*, might be the same Soḍhala mention-

1. *ibid.* 7, 1672-1678.
2. See footnote 2. (c) on p. xiii. regarding P. V. Sharma's paper.

ed by Śārṅgadeva as his father.¹ He also lived in the time of Siṅghaṇa. Since Śārṅgadeva mentions the names of the Yādava Kings only upto Siṅghaṇa, it appears that he too compiled his works *Adhyātmaviveka* and S. R., during the reign of King Siṅghaṇa.

Siṅghaṇa's death saw some scuffle between the descendants for the throne. The Yādava rule itself lasted only 70 years after Siṅghaṇa died, after which the Muslims took over. In this period Kṛṣṇa, Mahādeva, and Rāmacandra were the successors to the throne. Bopadeva, another illustrious figure in the Yādava rule lived in this period. He was the son of Keśava, the author of *Siddhamantra*. Bopadeva was a versatile genius and had to his credit a number of books on such diverse subjects as, *Sāhitya*, *Vyākaraṇa*, *Āyurveda*, *Jyotiṣa*, *Bhāgavata*, including a commentary, 'Prakāśa' on his father's work 'Siddhamantra'. His contemporary and a close friend was Hemādri who was the chief minister during this period; he too was a great scholar of *Āyurveda* and had several books and commentaries to his credit

Thus we see that the Yādava rule in the Deccan patronised eminent scholars from various fields and in particular from *Āyurveda*. Some of the rulers themselves, we have seen, were adepts in *Āyurveda* and other subjects. All this gives us a picture of the time, place and the environment in which Śārṅgadeva lived and produced his monumental work.

4. Various Editions of S. R.

Three printed editions of S. R. have been published till now.

(i) The earliest edition of S. R. was brought out in 1879 by Kālīvara Vedāntavāgīśa and Śāradā Prasāda Ghosa from Calcutta. This was printed at the New Arya Press,

1. There is however, an element of doubt regarding the two Soḍhalas being identical, for Soḍhala of the *Āyurveda-nighaṇṭu* mentions his *Gotra* as Vatsa whereas Śārṅgadeva belongs to the *Vṛṣagaṇa Gotra*. See introduction to *Gada-nigraha* edited by Ganēśakṛṣṇa Pandey

Calcutta. This volume contained only the *Svarādhyāya* and is accompanied by the commentary of Siṁhabhūpāla.¹

Since we have not had access to this edition, we cannot say whether this is a critical one or not.

(ii) In 1896, S. R. was published in the Ānandāśrama Series (No. 35). Edited by Mangesh Ramakrishna Telanga, this was brought out in two volumes. The second volume appeared in 1897. The first volume consisted of the chapters I to V. The remaining two chapters comprised the second volume. Kallinātha's commentary to the entire text accompanied this edition. Thus, this is the first printed edition incorporating the full text of S. R.. This is a critical edition in so far as the various available manuscripts and the reading of the commentator have been collated.

(ii) The Adyar Library and Research Centre, Madras, has brought out the latest edition of S. R. The entire text along with the two commentaries of Kallinātha and Siṁhabhūpāla is edited by Pandit S. Subrahmanya Sastri and is published in four volumes. The first volume contains the first chapter; the second volume—the second, the third and the fourth chapters; the third volume—the fifth and the sixth chapters; and the fourth volume—the seventh chapter. The first volume appeared in 1943 and the last one in 1953, while the second volume was revised by Pandit V. Krishnamacharya and published again in 1959.

Even though Kunhan Raja² in his introduction to the first volume, states that both the earlier editions of S. R. and other manuscripts have been compared in the preparation of the Adyar edition, it fails to be a critical one. Variant readings, excepting those found in the commentary of Siṁhabhūpāla have not been indicated.

1. See p. vi, Kunhan Raja's introduction to S. R. Vol. I, Adyar ed.

2. p. vii Kunhan Raja's introduction to S. R. vol. I. Adyar ed.

5. Commentaries on S. R.

S. R. is the only work on *Saṅgītaśāstra* that has to its credit more than one commentary. The editors of the Calcutta edition are reported¹ to speak of seven commentaries, of which four are in Sanskrit, one in Hindi and two in Telugu. M. Krishnamachariar in his 'History of Classical Sanskrit Literature', also mentions seven commentaries. The authors for six are mentioned as Śiṃhabhūpāla, Keśava, Kallinātha, Haṃsabhūpāla, Kumbhakarṇa and Gaṅgārāma.² Of these, the commentaries of only Śiṃhabhūpāla, Kallinātha and Gaṅgārāma are available today. Reference to the commentary of Keśava is also found in S. Sud.³ M. Krishnamachariar mentions the name of this commentary as Kaustubha.⁴ 'Haṃsabhūpāla' seems to be a mistake for 'Śiṃhabhūpāla'.⁵ The name of the seventh commentary is Candrikā but the author is not known.⁶ No details regarding the *Candrikā* commentary or the commentary attributed to Kumbhakarṇa are known.

(i) Śiṃhabhūpāla's *Saṅgītasudhākara* is the earliest commentary and is seldom critical; it almost paraphrases the text. In the introductory verses, Śiṃhabhūpāla explaining the need for such a commentary, stated :

(a) The whole system of music expounded by Bharata and others had been shattered before the advent of Śārṅgadeva and it was Śārṅgadeva who consolidated and now he (Śiṃhabhūpāla) himself is trying to make it understandable, out of consideration for the people.⁷

1. *ibid.* p. x.
2. *History of Classical Sanskrit Literature*, p. 853.
3. *S. Sud.*, p. 15², sl. 408.
4. *History of Classical Sanskrit Literature*, p. 853.
5. Kunhan Raja's Introduction to S. R. Vol. I, p. xi.
6. *History of Classical Sanskrit Literature*, p. 853.
7. Introductory sl. 5-7 of Śiṃhabhūpāla's commentary on S. R. p. 6.

(b) The text of S. R. is profound (*gambhīra*) and complex (*viśama*) and is intelligible to very few persons; he alone is competent to write a commentary on it.¹

(c) It is difficult for one to be adept at both *lakṣya* and *lakṣaṇa* and hence this commentary (which relates *lakṣaṇa* to *lakṣya*) is nothing short of an original work.²

(ii) Kallinātha's commentary 'Kalānidhi' is somewhat critical. Valuable references to contemporaneous practice are found in the *rāga* chapter. At the same time he leaves many sections uncommented, implying either that the sections are irrelevant or are too clear to need any commentary; however, what may have been clear enough to him is seldom so to the present day scholar.

Kallinātha also refers to himself as *lakṣya-lakṣaṇa-kovida* (well-versed). He claims that he has tried to reconcile *lakṣya* and *lakṣaṇa* and remove the contradictions (*virodha*).³

It is obvious that both Śiṃhabhūpāla and Kallinātha feel that it is a big responsibility to connect the *lakṣaṇa* of S. R. with their contemporary *lakṣya*. This appears to be a subtle way of indicating the cleavage, that had become conspicuous in their time, between the two. Though they have tried their best to reconcile the cleavage, it becomes more obvious by the time of Rāmāmātya, the author of *Svara-mela-kalānidhi*.

Some pertinent questions arise in connection with Kallinātha and his commentary.

(a) In the chapter on *rāga*, Kallinātha cites a number of examples from the practice (*lakṣya*) of his time to bring out the non-conformity of the contemporary

1. *ibid.* sl. 11.
2. *ibid.* sl. 12.
3. Kallinātha's introductory verses to his commentary on S. R. sl. 13-14.

lakṣya to the *lakṣaṇa* of the *grāma-rāga-s* etc. described in S. R.¹ In this context it is strange that he does not refer to Vidyāraṇya² whose system of *mela-s* had already been propounded. This is all the more surprising since Vidyāraṇya too had belonged to the same Vijayanagaram empire of which Kallinātha was a citizen.

(b) Rāmakṛṣṇa Kavi in his *Bharata Kośa* states that Rāmāmātya is the grandson (*dauhitra*) of Kallinātha.³ One does not know the source from which Śrī Kavi obtained this information, but it is very curious that Rāmāmātya does not refer to Kallinātha at all in his entire work. Again, while Kallinātha frequently asserts his familiarity with the musical tradition handed down by Bharata, Mataṅga, Śārṅgadeva etc., i. e., the knowledge of the '*sampradāya*'⁴, Rāmāmātya seems to reveal a lack of understanding of Śārṅgadeva's work and his *svara* system in particular. Students of history of music wonder how within the time of Kallinātha and Rāmāmātya the tradition of S. R. became unfamiliar.

(c) Equally strange is the fact that the author of S. Sud. should find Vidyāraṇya accessible but Kallinātha obscure.⁵

(iii) Kumbhakarṇa is now established as the author of Saṅgitarāja. It is indeed strange that Kumbhakarṇa should have been noticed as a commentator of S. R. Saṅgitarāja is an independent work, the scope of which is larger than

1. K. on S. R., 2. 159-160, vol. II, p. 114-116 (Revised edition)
2. Vidyāraṇya is the author of Saṅgītasāra, known to be the first work on *mela*-system and which is no more available.
3. Bharata Kośa, p. 550.
4. cf. K on S. R. 1, 4, 15ab-16, vol. I, p. 108; K on S. R. 5.237-238 vol. III, p. 135 ln. 12-13.
5. S. Sud., p. 152.

that of S. R. in some respects. However, the bulk of its contents is an elaboration of S. R. and hence it may be called a commentary in an informal sense. It is, however, not known on what source this reference was based.

4. A manuscript of Gaṅgārāma's Hindi commentary 'Saṅgīta-setu' is deposited in the library of the palace of the former Prince of Kashi, in Ramnagar, Varanasi.¹ The work is more of a translation, though some independent observations or explanations of the commentator are found here and there². Indication of the verse or group of verses forming a unit of translation is also given with the initial word (*pratīka*), e. g., *Brahmeti* for the opening verse of the work.

The order of *Vādyādhyāya* and *Nartanādhyāya* having been reversed, the commentary ends with the *Vādyādhyāya*³. The last colophon reads :

इति श्री महाराजाधिराज श्री महाराजा श्री राजा बहादुर सीतारामचंद्र
कृपापात्राधिकारी विश्वनाथ सिंह ज देव तदाज्ञा-प्रयुक्त-श्रीमाथुरकुलमणि
तुलारामगर्भ-समुद्भूत-गंगाराम-कृत-संगीतसेतौ वाद्याध्यायः षष्ठः (सप्तमः ?)
समाप्तिमगमत् तदेतद्विदुषां प्रीतये भूयात् ॥

संवत् १९०२ के साल मितौ भाद्रवदी ८ समाप्तः ॥

श्री नृपमणो विसुनाथ तव मोद हेतु सुख पाइ । लाला दौलत लिखत
वाद्याध्याय बनाइ ॥

The colophon gives the following information :—

(a) The date of the work is Samvat 1903, i. e., 1903-57 = 1846 A. D.

1. A transcript of the same has been prepared by the Research Section of the Department of Musicology, B. H. U.
2. There is reference to Kenopaniṣad in the commentary to S. R. 1. 2, verse 18-20 '*Anūhata*' is explained as that which is not the product of an attack or striking anywhere. In the context of *Sādharāṇa* there are references to *Saṅgīta-parijāta* and *Naradyaśikṣa*
3. This could have been the mistake of the copyist.

- (b) Visvanath Singh is the name of the commentator's patron, obviously the prince of Rewan, who was a great scholar and patron of literature and arts.
- (c) The author hails from Mathura.
- (d) The language of the commentary is Brajabhāṣā.
- (e) The scribe appears to be Lala Daulat.

Critical approach seems to be wanting in this commentary. There appears to have been no attempt to interpret the concepts in the light of current practice.

6. General Scheme and Style of the Work

(a) Objective :—Śārṅgadeva states the following four reasons for writing S. R.¹

- (i) *Akhilalokanām tāpatrayajihīṣaya*—to liberate everyone from the three kinds of pain, *ādhibhautika* (physical), *ādhyātmika* (psychological), and *ādhidai- vika* (natural calamities).
- (ii) *Śāśvatāya-dharmāya*—to uphold the eternal *dharma* (virtue).
- (iii) *Kīrtiyai*—for obtaining fame.
- (iv) *niḥśreyasāptaye*—for achieving liberation.

(b) Scheme :—S. R. is devoted to the delineation of *saṅgīta*—a composite of *gīta*, *vādyā* and *ṛtīta*. Śārṅgadeva has consolidated and arranged in seven chapters the exposition of the entire *saṅgīta*. Six chapters are devoted to music and the last one to dance. Music, independent of drama, had apparently become crystallised by the time of Śārṅgadeva.

Following is the list of the various chapters and their contents. Since the present volume of the translation includes only the first chapter, the others will be discussed in the introduction to the respective volumes.

1. S. R. 1. 1. 13cd-14.

CHAPTER I : SVARAGATĀDHYĀYA

The first chapter is confined to the treatment of *svara*, i. e., the tonal aspect. It is further divided into eight sections (*prakaraṇa-s*). They are :

(i) *Padārthasaṅgraha-prakaraṇa* :—Genealogy of the author, the ancient authorities (*ācārya-s*) to whom the author is indebted, and table of contents.

(ii) *Piṅdotpatti-prakaraṇa* : Genesis of the human body combining the Vedāntic, Āyurvedic and Haṭhayogic views.

(iii) *Nāda - sthāna - śruti-svara - jāti-kula-duivata-ṛṣi-cchand-rasa-prakaraṇa* : *Nādopāsanā*, the production of *nāda* in the human body according to Śikṣā-s; 22 *śruti-s*; *sāraṇā**; *svara* and its definition; *śruti-jāti-s** : names of 22 *śruti-s**; *suddha-vikṛta svara-s*; association of animal-cries with *svara-s*; four kinds of *svara-s*—*vādi-samvādi-vivādi-anuvādi*; assignment¹ of *kula*, *varṇa* (caste), *varṇa* (colour), *janmabhūmi* (birthplace), *ṛṣi* (seers), *devatā* (gods), *chandas* (metres) and *rasa* (sentiments) to *svara-s*.

(iv) *Grāma-mūrchanā-krama-tāna prakaraṇa* : Three *grāma-s*; *mūrchanā-s*; *krama-s*; *suddha-tāna-s*; *kūṭa-tāna-s*; *prastāra*; *khaṇḍa-meru* and the mode of computing *naṣṭa* and *uddiṣṭa*; names of *suddha-tāna-s*

(v) *Sādhāraṇa-prakaraṇa* : *svara-sādhāraṇa*; its four varieties—*kākalī*, *antara*, *śaḍja*, *madhyama*—and the process of obtaining the 12 *vikṛta svara-s*; *jāti-sādhāraṇa*.

(vi) *Varṇa-alāṅkāra-prakaraṇa* : four *varṇa-s*; *alāṅkāra-s*.

The number of *alāṅkāra-s* in S. R. is more than those mentioned in earlier treatises. However in S. R. the term *alāṅkāra* has a restricted usage and refers only to the melodic motif, whereas in N. S. the term comprehended 'kampa' also.

* marked on topics implies that either the author provides the first available record of the respective tradition or has his own way of treatment.

1. This body of *lakṣaṇa* combines the influence of vedic and tantric tradition.

By Śārṅgadeva's time *kamṣa* and its varieties had acquired the name *gamaka*.

(vii) *Jāti-prakaraṇa* : *Suddhā-jāti-s*; *vikṛtā-jāti-s*; *vikṛtā-saṃsargajā-jāti-s*; characteristics (*lakṣaṇa*) of *jāti-s*; treatment of individual *jāti-s* and their respective *prastāra-s*.

One may ask why *jāti-s* should have been treated in the chapter on *svara* while treatment of *rāga* has been taken up in a separate chapter. This is because *rāga* had become fully developed by the time of Śārṅgadeva and its large number demanded a separate chapter.

(viii) *Gīti-prakaraṇa* : *Kapāla-s* and *kambala*; *gīti-s*.

CHAPTER II : RĀGAVIVEKĀDHYĀYA

This chapter is divided into two *prakaraṇa-s*.

(i) *Grāmarāga - uparāga - rāga-bhāṣā - vibhāṣā - antarabhāṣā - viveka-prakaraṇa*.

(ii) *Rāgāṅgādinirṇaya-prakaraṇa*.

CHAPTER III : PRAKĪRṆAKĀDHYĀYA

Lakṣaṇa-s of *vāggyakara-s*, *gāyana-bheda*: *śabda-bheda* etc.; *śrīti-lakṣaṇa* etc.; *gamaka*; *sthāya*; *ālapti*.

Most of the material included in this chapter represents developments of the post-Bharata period.

CHAPTER IV : PRABANDHĀDHYĀYA

Definition of *gīta* and its division into *gāndharva* and *gāna*; constituents of *prabandha*; description of individual *prabandha-s*, *guṇa* and *doṣa* of *gīta*.

Prabandha-s definitely represented music independent of drama.

CHAPTER V : TĀLĀDHYĀYA

Marga tāla-s; *gītaka-s*; *deśī tāla-s*; *pratyaya* of *deśī tāla-s*.

CHAPTER VI : VĀDYĀDHYĀYA

Structure, modes of playing and the compositions pertaining to *tata*, *śuṣira*, *avanaddha*, and *ghana vādya-s*.

S. R.'s treatment of all the *vādya-s* in one single chapter is a distinct departure from Bharata's scheme where the *tata* and *śuṣira* are taken along with the chapters pertaining to *svara* and the others treated separately.

CHAPTER VII : NARTANĀDHYĀYA

Elements of *ṅīta*; dance forms; treatment of nine *rasa-s*

(c) Style : Śārṅgadeva presents the subject in a concise and precise manner. His treatment is devoid of any 'śāstrārtha' style, i. e., there is no argumentative approach. Very rarely do we come across some sort of discussion. For instance, after describing *śruti* and *svara*, the author himself raises a doubt—"if *svara-s* are effected only on the 4th. (7th, 9th.....) and other *śruti-s*, then how could the previous *śruti-s*, i. e., 3rd. (2nd., 1st. or 6th., 5th.) etc. be said to contribute to it (*svara*)?"¹ The author then answers the question himself. Similarly, while pointing out the exceptional case of *pañcamī jāti* with regard to the observance of the rule relating to the weak notes and the *śāḍava-auḍuva* formations, he brings in the concepts of *parisaṅkhyā* and *vidhi* of the *Mīmāṃsā* school of Philosophy.²

In conciseness of expression and as regards consolidation of earlier *lakṣaṇa*, Śārṅgadeva can be compared with Mammaṭa, the author of *Kāvyaprakāśa*.

7. Consolidation and Supplementation of lakṣaṇa from earlier and contemporary sources

Śārṅgadeva in the introductory section of the first chapter of S. R. lists a number of earlier authorities, the essence of whose views, he states, he is presenting in his work.³ A detailed and a comparative study of S. R. and the

1. S. R. 1. 3, 25c-27ab.
2. *ibid.* 1. 7, 57 cd 59ab.
3. *ibid.* 1. 1, 15-21ab

earlier texts bears this out. Of the earlier authorities listed by him, works of only some are available today; they are—Bharata, Dattila, Mataṅga, Bhoja, Abhinavagupta, Someśvara, Nānyadeva and Jagadekamalla.

It is, however, not to be surmised that Śārṅgadeva has consolidated all that has been stated in the earlier works. He has been extremely judicious, discriminating, and selective in incorporating the *lakṣaṇa* from the earlier sources. He has left out some portions from the works of Bharata and others. For instance, the entire section on *dhruvā-s* dealt with in N. S. has been omitted in S. R. Details regarding the repertoire of drums described by Bharata have been left out and instead we have the delineation of *vādyā-prabandha-s*. Śārṅgadeva has also chosen not to include the polemic discussion on the relation between *svara* and *śruti* given in Bṛhaddeśi and has ignored the reference to the twelve *svaramūrcchanā-s* mentioned in it.

We shall also state here some of the points on which Śārṅgadeva seems to have been influenced by the earlier writers or incorporated the current tradition of *lakṣaṇa lakṣya*.

(i) Bharata and Dattila : *Svara, śruti, grāma, mūrcchanā, jāti, gīti, tāla (mārga-tāla), gītaka-s*.

Much of the material in the *Nartanādhyāya* has been based on N. S. but very little from it is reflected in the *Vādyādhyāya*.

(ii) Mataṅga : (i) Names of *śuddha-tāna-s*.

(ii) *Viniyoga* of the *jāti-s*, mentioning of *mūrcchanā-s* in them and the *prastāra-s* for them.

(iii) *Rāga*-classification and the *lakṣaṇa-s* of individual *rāga-s*.

(iii) Abhinavagupta : Abhinavagupta's influence on Śārṅgadeva has been enormous. Mostly the influence has been very subtle but sometimes it becomes obvious also. Unlike in the case of other sources the influence is not so

much in terms of information but in terms of elucidation of concepts. For instance, Śārṅgadeva's definition of *svara*¹ is clearly seen to be based on that of Abhinavagupta.

(iv) Someśvara : Some of the topics dealt with in the *prakīrṇaka* chapter could have been taken from the *Gīta-vinoda* section of *Mānasollāsa*. e. g. *gamaka-s, guṇa* and *doṣa* of musicians.

(v) Nānyadeva : The verbal texts accompanying the *jāti-prastāra-s*, details of *Kapāla-gāna-s* etc. are for the first time seen in *Bharatabhāṣya*. Thus it could have been the source for Śārṅgadeva.

(vi) Contemporary tradition of *lakṣaṇa*—both written and oral.

Information on *sthāya-s* and *gamaka-s* must have also been obtained from some contemporary oral tradition. We come across certain *deśi* names in the *sthāya-s*. Contemporary works like *Saṅgītasamayāsāra* of Pārśvadeva also list these names. So these names must have been current at that time in *lakṣya*.

Details of *deśi tāla-s* too must have come from some oral tradition (if not from *Saṅgīta-cūḍāmaṇi* of Jagadekamall).

(e) Incorporation from current *lakṣya*

In the *svara* chapter very little from current *lakṣya* has been incorporated. In the description of the characteristics of *aṁśa* in *jāti-s* Śārṅgadeva adds that the *aṁśa* can be its own *saṁvādī*, *anuvādī* etc.², implying that *rāga-s* where the *vādī* has no *saṁvādī* (like our contemporary *pūriyā, māravā* and *sohanī*, where neither *śuddha-madhyama* nor *pañcama* are present), the *vādī* is its own *saṁvādī*. In the description of *sthāya-s* and *rāga-s* also Śārṅgadeva lists some which he calls 'adhunā-prasiddha' probably indicating their use in the current *lakṣya*.

1. S. R. 1, 3, 24cd-25ab.

2. *ibid.* 1, 7, 33.

8. Constant References in and Influence on Later Literature

Very soon after it was written, S. R. appears to have attracted the attention of the scholars all over the country, and within a century the commentary (by *Siṃhabhūpāla*) on the entire work had been completed. Even in this century scholars like V.N. Bhatkhande¹ had accepted the importance of serious study of S. R. Thus almost from the time it was composed upto the present day S. R. has commanded continuous attention of scholars.

The one point on which most of the subsequent authors have cited S. R. as an authority is the importance of *lakṣya* in comparison to *lakṣaṇa*. This is understandably so because, to the scholars of the post-Śārṅgadeva period who found it difficult to reconcile the widening cleavage between *lakṣaṇa* of S. R. and the contemporary *lakṣya*, the statement by Śārṅgadeva himself asserting the primacy of *lakṣya* was greatly welcome.²

Sometimes S. R. has also been the target of reproach for the same reason that the *lakṣaṇa* did not satisfy the *lakṣya* of the medieval period. The author of S. Sud.³ found the *lakṣaṇa-s* of *rāga-s* described in S. R. quite obscure and not pertaining to the *rāga-s* of his time. S. Sud. declares that it had to discard the delineation of *rāga-s* in S. R. because of their obscurity and neither did the commentaries of Keśava and Kallinātha make the delineation more accessible. In recent times too S. R. has not been spared. Pt. Omkarnath Thakur in his *Saṅgītāñjali*⁴ attacks S. R.'s method of describing the *catuḥ-sāraṇā* experiment on the grounds of its not being lucid, clear, scientific, and practical. S. R.'s approach has, however, been defended by K. C. D. Bṛhaspati in his *Saṅgītacintāmaṇi*.⁵

1. p. 789 Hindustani Saṅgit Paddhati Vol. IV. edition, Hathras.
2. cf. S. M. K., 2, 12; R. V., 1.33; *Ṣaṭrāgacandrodaya*, 10.
3. S. Sud. p. 152, sl. 407-409
4. Saṅgītanjali Vol. V, p. 94.
5. *Saṅgītacintāmaṇi*, p. 134-148.

One aspect in which S. R.'s influence is seen to be the greatest is the scheme that some of the authors of the post-Śārṅgadeva period adopted in composing their treatises. *Saṅgītadarpaṇa*, *Saṅgīta-sārāṃṛta*, *Saṅgīta-sāra* (from Jaipur), and even S. Sud. which is quite critical of S. R., follow the arrangement of the subject set by S. R. But these works are often brief and leave out many of the details given in S. R.

9. References to S. R. in non-musical texts

Many of the writers of non-musical texts have also acknowledged S. R.'s authority in music and allied subjects and have referred to it in their works. Few examples may be noted here.

(a) Jagannātha in his *Rasa-gaṅgādhara*, while discussing the problem of *rasa-s* being eight or nine, quotes a verse from the *rasa*-section of the last chapter in S. R.¹ Again while explaining how the *sthāyi-bhāva-s* become *vyabhicāri-bhāva-s*, he quotes a verse from S. R. to support his statement.² Thus it is seen that S. R.'s contribution to the treatment of *rasa* was noticed in the literature on poetics.

(b) Mallinātha the commentator on the play *Śiśupālavadhā* of Māgha, quotes a number of verses relating to *śruti* and *svara* from S. R.³

(c) Ranganātha quotes S. R. on the characteristics of *rāga valantikā*, in his commentary 'Prakāśikā' on Kalidāsa's play 'Vikramorvaśīyam'.⁴

Thus it is very clearly seen that S. R. had made a tremendous impact on the field of music literature and established for itself a status next only to Bharata's N. S.

1. *Rasa-gaṅgādhara* p. 37 (quoting S. R. 7.1360)
2. *ibid.* p. 38 (quoting S. R. 7, 1519cd-1520ab)
3. Mallinātha's commentary on Māgha's *Śiśupālavadhā*, Canto 1, sl. 10.
4. *Prakāśikā* on *Vikramorvaśīyam*, Act 4, sl. 25 quotes S. R. 2. 2. 147-148. S. R. however gives the name of the *rāga* as *vallāta*.

10. Some Observations on Svarādhyāya and General Evaluation

As stated before, this chapter is largely a consolidation and reorganisation of the *lakṣaṇa* found in the earlier texts. A few relevant points, however, have to be stated here regarding Śārṅgadeva's treatment of certain topics.

Svara-sādhāraṇa : *Svara-sādhāraṇa* as treated in S. R. is already latent in N. S. On the basis of Abhinavagupta's commentary¹, Śārṅgadeva has spelt it out and his 12 *vikṛta-svara-s* are nothing but the renaming of the *svara-s* born out of the process of *sādhāraṇa*.

Sādhāraṇa belongs to a context where *svara-s* are basically seven. Only two *vikṛta-svara-s*, *antara* (*gāndhāra*) and *kākalī* (*viṭāḍā*) are accepted as regular notes as far as they are also fixed on any instrument, especially of the harp type.² On the other hand the *kaiśika-sādhāraṇa* is meant only for covering the consequential changes in intervals that are not to be regularly fixed on the strings of a *viṇā*. Texts of the post-Ratnākara period equated all *sādhāraṇa-s*, and tried to fix all the *svara-s* on the frets of *viṇā*. Further, this was not in accordance with the *grāma*-system. Misconception on the part of later authors regarding the treatment in S. R. arose because it was wrongly surmised that both the *sādhāraṇas*, *antara* and *kaiśika* were meant to co-exist. In fact the *jāti-s* in which the *svara-sādhāraṇa* occurred are clearly prescribed. Moreover, when Śārṅgadeva lists the seven *śuddha-svara-s* and twelve *vikṛta-svara-s*, he is merely consolidating the *lakṣaṇa* handed down. Unfortunately the writers of the later period seem to have been confused by the enumeration of the 19 *svara-s* in one sequence and thought that the *svara-s* should occur one after another. Consequently they tried to fix these

1. A. B. on N. S. 28. 34-36, p. 31-34.

2. Nānyadeva states that in the *Vīpañcī viṇā* which had nine strings, the two extra strings were tuned to *antara* and *kākalī svara-s*, cf. Bharata-bhāṣya, folio 368 & 371.

svara-s on the frets of the *viṇā*. They had not apparently tried to relate the *sādhāraṇa prakaraṇa* with the enumeration of *vikṛta svara-s*. Otherwise such confusion might not have arisen. S. R.'s description of the *rāga-s* too follows the same *svara* system and hence there too there is no need for the *kaiśika* and other *svara-s* to be mentioned. Only *kākalī* and *antara* need be mentioned in *rāga-s*.

Jāti-s : Some questions arise in connection with the delineation of *jāti-s* in S. R.

- (i) Did *jāti-s* have any practical relevance when the *rāga-s* had emerged ?
- (ii) Each *jāti*, *śadjī* etc. was conceived as a 'class' combining different individual melodies having certain common characteristics. But we find that each *jāti* is illustrated at the end by means of a single *prastāra*. How could the tradition of specific *prastāra* of *jāti-s* be compatible with the generic nature of *jāti* which could be conceived as a very broad melodic entity encompassing numerous varieties ? Or, is it indicative of the fact that *jāti* had become obsolete in Maṭaṅga's time and the *prastāra-s* were composed just to retain its rough outlines ? These questions need to be seriously investigated.

Śārṅgadeva belonged to that period of Indian history when most of the disciplines, especially *Saṅgīta-śāstra*, were trying to consolidate the original contribution of earlier tradition. Talking of *saṅgīta-śāstra* in particular, the history of its texts can be divided into four periods.¹

1. These periods have been treated in some detail in my paper entitled "A Historical Note on Musical Research in India" presented at a seminar in M. S. University, Baroda in Nov; 77.

Period I :—Primary and Formative—2000 B. C. to 500 A. D.

Period II :—Expository and Expansive—600 A. D. to 1200 A. D.

Period III :—Reconciliatory and Revaluative—1300 A. D. to 1750 A. D.

Period IV :—Critical and Interpretative—1750 A. D. onwards.

Śārṅgadeva occupies a very important position in the second period. The basic difference in the approach of the first and the second periods is that whereas the approach of the former was direct, that is to say, *lakṣya* was evolved out of a direct study of *lakṣya*; and intuitive knowledge and experience was communicated keeping in view the totality of human expression through sound at all levels, the approach of the latter was mainly indirect, that is to say, through *lakṣya* and only to some extent direct (taking into account *lakṣya*). It is not intended here to degrade the latter approach. But it is the *lakṣya*-oriented approach which is responsible for the separation of the composite concept of *svara-śruti-grāma-mūrcchanā* found in N. S. . In the arrangement of topics in S. R., *grāma* does not appear in the same *prakāraṇa* as *śruti* and *sāraṇā*. Again *sādharaṇa* is separated from the description of *vikṛta-svara-s*. A serious student of today must bear this difference of approach in mind while studying the texts of the first period and those of the second.

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Prem Lata Sharma

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The Treatment of Svāra

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Chapter I

THE TREATMENT OF SVARA

प्रथमः स्वरगताध्यायः

तत्रादिमं पदार्थसंग्रहाख्यं प्रकरणम्

मङ्गलाचरणम्

ब्रह्मग्रन्थिजमास्तानुगतिना चित्तेन हृत्पङ्कजे
सूरोणामनु रञ्जकः श्रुतिपदं योऽयं स्वयं राजते ।
यस्माद् ग्रामविभागवर्णरचनाऽलङ्कारजातिक्रमो
वन्दे नादतनुं तमुद्घुरजगद्गीतं मुदे शङ्करम् ॥१॥

Section I

Introductory

(i) Propitiation : I

For delight¹ do I worship Lord Śiva² embodied in (the form of) *nāda*³, pre-eminently adored by the entire world, the source of order inherent in the division of domains⁴, the

1. The author is offering his prayers without any ulterior motive, i. e., for the very delight that accompanies the act of worship, and so his prayers are immediately answered.
2. The word used is *Śankara*, which is capable of double meaning, viz. the name of Lord Śiva, and etymologically, one who causes comfort or well-being.
3. *Nāda* is primordial sound, the manifest quality of the first of the five elements of creation, *ākāśa* (space) in its unmodified state.
4. The word *grāma* is capable of double meaning, viz. the different *loka-s* (i. e., world-views) such as *Bhūḥ*, *Bhuvah*, etc., and the three basic scales—*ṣadja-grāma*, *madhyama-grāma* and *gāndhāra-grāma* spoken of in ancient music.

organisation of castes⁶ and the distinction of species⁶; who, being manifest in the heart-lotus⁷ of yogins as *oṅkāra*⁸ in the contemplation of mind united to the movement of *prāṇa*⁹ originating from the root¹⁰ of the navel, shines in its own lustre.¹¹ (1).

Interpretation with reference to music:

I take pleasure in paying my homage to *gītam*¹², the embodiment of *nāda*, the cause of comfort¹³ in the restless¹⁴ world, the source of the system comprising the [division of

5. *Varṇa* implies the four castes, viz. *Brāhmaṇa*, *Kṣatriya*, *Vaiśya* and *Śūdra* in which the ancient Hindu society was divided; and in the context of music it signifies types of tonal movement, viz. *sthāyī*, *āroḥī*, *avarohī* and *sañcārī*.
6. Various species of animal kingdom; in music the word (*jāti*) stands for arche-types of *rāgas*, viz. *śādji*, *arṣabhi*, etc. The word *alaṅkāra* is taken by 'K' in combination with *jāti*. Accordingly, this word has been bracketed with 'species' (*jāti*) in our translation of the text, in the context of Śiva. The etymological meaning of the word is *alan-karoti-iti alaṅkārah*, i. e., which delineates the optimum, such as that of beauty etc. and is, therefore, also used in the sense of 'ornament or embellishment'. Here it has been interpreted in the simple meaning of delineating the optimum of the species.
7. *Hṛtpankaja* is the heart-lotus, the seat of *anāhata-cakra* of twelve petals in the system of *Kūṇḍalinī-Yoga*.
8. *Śrutipadam* is the source of Vedas, i. e. *oṅkāra* and in music *śruti* signifies a microtone.
9. *Prāṇa* is the vital breath spoken of as *maruta* (air) in the text; and the movement of *prāṇa* is necessary for the articulation of sound.
10. *Brahmagranthi* is the knot in which the psychic currents of *idā* and *piṅgalā* join with the central canal of psychic energy, viz. *suṣūmnā*, near about the root of the navel.
11. The supreme Being is self-luminous and cannot be enlightened by any modification of the mind. This self-luminosity of pure Being is suggestive, in the musical context, of the etymological meaning of *svāra*.
12. *Gītam* (singing) also implies *vādyam* (instrumental music) and *nṛttam* (dancing). As *gītam* is directly related to the process of voice-production in the body, and also because it is considered to be the main organ of *saṅgīta*, it represents the entire art of music.
13. The etymological meaning of the word *Śaṅkara*.
14. A free rendering of the word *uddhura*, meaning 'unrestrained.'

*grāma*¹⁵, the composition of *varṇa-s*¹⁶, the *alaṅkāra-s*¹⁷ and the *jāti-s*¹⁸, the self-manifest¹⁹ locus of *śruti-s*²⁰ that delights the masters of music in the lower²¹ register, aided by the mind attuned to the movement of *prāṇa* originating from the root of the navel.

Comments :

It is customary, in the Indian tradition, to offer worship to one's favourite god as a mark of auspiciousness and for the successful completion of the work being undertaken. Here, the author opens his *maṅgala-carana* (a benedictory verse) with the word *Brahman* as a mark of auspiciousness, and offers worship to Lord Śiva, his *iṣṭadevatā* (favourite god) who, incidentally, is the presiding deity of *Saṅgīta*. The concept of *iṣṭadevatā* is peculiar to Indian culture, and is akin to and seems to have its origin in, what is known as 'Henotheism' of the vedic pantheon. There are various religions, dogmas and sects who have their own supreme deity. The concept of *iṣṭadevatā* implies the understanding that, although there is one God in the absolute sense, yet it is known and worshipped in a particular form and under a particular name that is relevant to a particular sect. It is also implied in the puranic mythology, to which this concept truly belongs, that whatever be the description of the supreme deity in a particular sect, the gods of other sects would be related to it in some way or the other. Thus, every Hindu is free to have his own supreme deity. Faith is, therefore, largely an individual affair. Different members of a family can and do quite often have different *iṣṭadevatā-s*. This concept seems to be supported by the *Bhagavad-gītā* where Lord Kṛṣṇa declares :

"Whatsoever form (of the supreme deity) a devotee wishes to worship earnestly, I strengthen his faith in that deity and make it unflinching." (Bh. G. VII-21)

15. *Grāma* is a specific group of *svāra-s* (tones), and three *grāma-s* are accepted, viz. *śādji*, *madhyama* and *gāndhāra*.
16. *Varṇa* is 'type of tonal movement', the act of singing, such as *sthāyī* etc.
17. *Alaṅkāra* is a specific combination of *svāra-s*.
18. *Jāti* is a virtual archetype of *rāga*, e.g. *śādji*, *arṣabhi*, etc.
19. *Śvayaṃ rajate*, suggests the etymological definition of *svāra*, i. e., the sound that is perceptible and delightful by itself.
20. *Śruti* signifies a perceptible constituent unit-factor of tone.
21. The heart is identified with the region of voice-production for the lower register, which implies the other two here.

Incidentally this shows that, since the benedictory verse is offered to Lord Śiva, Śārngadeva belongs to the Śaiva cult. This gives his religious orientation, though as it would be clear in the subsequent passages of the text, he seems to belong philosophically to the *Bhedābheda* system of Vedānta Philosophy. It is in this context that the concept of a personal God as *iṣṭadevatā* becomes all the more significant.

Apart from serving the purpose of *maṅgalācaraṇa*, this verse figuratively also points out the salient features or the main topics of the subject matter of this chapter. The figure of speech employed is known as *samāsokti* by which, such qualifying words are used that are capable of double meaning and are so composed in a verse or a sentence as briefly to indicate some other purport not directly implied by the primary meaning of the words (cf. *Kāvya-prakāśa* 10.97). Hence the verse is differently interpreted above with reference to music.

(ii) ग्रन्थकृदंश्वर्णनम्

अस्ति स्वस्तिगृहं वंशः श्रीमत्काश्मीरसंभवः ।

श्रेष्ठेष्वृषगणाज्जातः कीर्त्तिकालितदिङ्मुखः ॥२॥

यज्वभिर्धर्मधीधुर्यैर्वेदसागरपारगः ।

यो द्विजेन्द्रैरलञ्चक्रे ब्रह्मभिर्भूगतंरिव ॥३॥

तत्रामूद्गास्करप्रस्थो भास्करस्तेजसां निधिः ।

अलङ्कृतुं दक्षिणाशां यश्चक्रे दक्षिणाऽघनम् ॥४॥

तस्याभूत्तनयः प्रभूतविनयः श्रोसोढलः प्रौढधी-

र्येन श्रीकरणप्रवृद्धविभवं भूवल्लभं भिल्लमम् ।

आराध्याखिललोकशोकशमनीकीर्त्तिः समासादिता

जेत्रे जेत्रपदं न्यघायि महती श्रीसिद्धणे श्रीरपि ॥५॥

एकः क्षमाबलये क्षितिश्वरमिलन्मौलीन्द्रनीलावलि-

प्रोदञ्चद्द्युतिचित्रिताङ्घ्रिनखरश्रेणिनृपालाग्रणोः ।

श्रीमत्सिद्धणदेव एव विजयो यस्य प्रतापानलो

विश्वव्याप्यपि दन्दहीति हृदयान्येव द्विषामुद्गुरः ॥६॥

तं प्रसाद्य सुधीधुर्यो गुणिनं गुणरागिणम् ।

गुणग्रामेण यो विप्रानुपकारैरतीतृप्त ॥७॥

ददौ न किं न किं जज्ञौ न दधौ कां च सम्पदम् ।

कं धर्मं विदधौ नैष न बभौ कर्मणैरयम् ॥८॥

(ii) Author's lineage : 2-8

There¹ is a family line, an abode of beneficence, founded by the sage Vṛṣagaṇa in the beautiful (valley of) Kashmir, which has spread its fame in all the quarters of the world through the descendant dignitaries representing Brahmā² on the earth as it were, the best among the brahmins, the masters of the vedic lore, the upholders of religious order and the presiding priests of vedic sacrifices, who have enriched its lineage. (2-3)

In that family was born a treasure-house³ of extraordinary excellences bearing the name Bhāskara⁴ (lit. the sun) who, with a view to grace the southern⁵ direction by his presence, migrated to the south. (4)

1. 'S' informs that Vṛṣagaṇa is the name of a sage (i. e., ṛṣi) as well as a surname (i. e., gotra).
2. The creative aspect of pure being, one of the gods of the Hindu trinity Brahmā, Viṣṇu and Śiva. The significance of this metaphor is brought out by the words *bhū-deva* and *bhū-sura* which are the synonyms of *brāhmaṇa*. The brahmins are accordingly considered to be the gods of earth, gods in the sense of beings of extraordinary religious spirit.
3. The receptacle of divine glory or spiritual pre-eminence resulting from a sacred knowledge, as per one of the interpretations of 'S'.
4. That is, to mention one of the pioneers of the family line.
5. 'S' puts forward two other interesting interpretations, viz. i) 'he set out in search of a generous patron', ii) 'he set out to answer the call, to meet the demand of the experts'. The word *dakṣiṇa* in Sanskrit has three different meanings, viz. right (as opposed to left) or south, efficient or clever, and favourable. The word is actually loaded with all the three connotations, as its meaning as 'right' is suggestive of his sectarian affiliations, since there are two paths *dakṣiṇācāra* and *vāmācāra*, the positive and the negative approaches to the fulfilment of life. Besides, in Indian tradition, charity and gifts are given by the right hand and that is how the word *dakṣiṇa* is suggestive of the meaning that he set out in the search of a generous patron.

He begot a son Śrī Soḍhala by name; who, modest and mature of intellect as he was, attained the glory of alleviating the misery of the entire populace by endearing himself to king Bhillama whose fortune was fast-growing by the grace of Lakṣmī⁶. Also for Jaitra⁷, he established a column of victory in the majesty of king Śrī Siṅghaṇa. (5)

The king Śrī Siṅghaṇadeva was the only victorious monarch of the entire world, the emperor whose line of toenails was picturesque by the reflection of the brilliant streak of light issuing forth from the garland of the crown-gems of the (other) kings (of his time) falling at his feet; and the pervasive⁸ fire of whose victorious prowess burned the hearts of his foes only. (6)

Foremost among the intellectuals, he (Soḍhala) by his various accomplishments pleased the emperor, a mine of merit by himself and a lover of merit⁹ (in others); and satisfied the host of brahmins by affording generous gifts. Indeed, what did he not give away, what did he not know and what wealth did he not acquire¹⁰. In fact he possessed every virtue and good quality of character. (7-8)

'S' interprets the entire verse taking *Bhaskara* as a proper name and also as referring to the sun, and thereby brings out the poetic beauty of the verse.

6. Goddess of wealth. It is implied that Soḍhala having pleased the king Bhillama of immense treasures, obtained enormous riches from him which he distributed among the needy out of his generosity.
7. Jaitra was the son of king Bhillama who succeeded him. 'S' however says that it is a name of a city.
8. *Viśvayāpti* of the text literally means 'pervading the entire universe'. 'S' points out the figure of speech known as *Viśeṣokti* whereby, despite the presence of the cause, the effect is not fully manifest; since here the fire of his prowess pervades the whole world, yet it burns the hearts of his enemies only.
9. 'S' points out the use of *parikara alaṅkāra* (a figure of speech) since the expression *guṇarañjana* is an adjective loaded with meaningful intention.
10. The purport is that, he could and did part with every valuable thing, i. e. he generously gave in charity and gifts, he was proficient in every branch of knowledge, and he did not lack in any kind of wealth; and thus he was prosperous in every way.

(iii) ग्रन्थकृतो वैशिष्ट्यं, ग्रन्थप्रणयनहेतुरक्ष

तस्माद्दुग्धाम्बुधेर्जातः शाङ्गदेवः सुधाकरः ।

उपर्युपरि सर्वान्यः सदीदार्यस्फुरत्करः ॥१॥

कृतगुरुपदसेवः प्रीणिताशेषदेवः

कलितसकलशास्त्रः पूजिताशेषपात्रः ।

जगति विततकीर्त्तिर्मन्मथोदारमूर्तिः

प्रचुरतरविवेकः शाङ्गदेवोऽयमेकः ॥१०॥

नानास्थानेषु संभ्रान्ता परिश्रान्ता सरस्वती ।

सहवासप्रिया शश्वद्विश्राम्यति तदालये ॥११॥

स विनोदंकरसिको भाग्यवदग्ध्यभाजनम् ।

धनदानेन विप्राणामार्तिं संहृत्य शाश्वतीम् ॥१२॥

जिज्ञासूनां च विद्याभिर्गदार्तानां रसायनेः ।

अधुनाऽखिललोकानां तापत्रयजिहीर्षया ॥१३॥

शाश्वताय च धर्माय कीर्त्यै निःश्रेयसाप्तये ।

आविष्करोति संगीतरत्नाकरमुदारधीः ॥१४॥

(iii) Author's personality and the purpose of his undertaking : 9-14

From the heavenly ocean of milk¹ (Śrī Soḍhala) was born the producer of nectar (the moon) named Śārngadeva (the author), the rays² of whose righteous generosity spread wide upon all. (9)

In serving his preceptor, endearing himself to all the gods, studying all the sciences, adoring the worshipful,

1. Moon was one of the precious gems that were churned out of the mythological milk-ocean by the gods and the demons together (by a mythological convention).
2. The Skt. word *kara* means a ray, as well as a hand. So, since the poet is presenting a metaphor, the word is quite significant in both of its connotations.

Śārṅgadeva of widespread fame, with a majestic personality comparable to cupid and endowed with clever wit and sharp discrimination, is unique by himself in this world. (10)

Bewildered and tired of roaming around various places, and desirous of his (Śārṅgadeva's) association, Sarasvatī, the goddess of learning, has found a permanent rest-house in his residence. (11)

The incomparable reveller of amusements, the deserving candidate of good luck and skill, having mitigated the eternal poverty³ of the brahmins by generous distribution of his wealth among them, having satisfied the inquisitive scholars by his learning, and having cured the sick by his drugs, he the high-minded one now commences his work *Saṅgīta-ratnākara* for emancipating⁴ the entire populace from the threefold misery⁵ of the worldly life, serving the cause of eternal *dharma*⁶, obtaining glory and for achieving liberation⁷. (12-14)

(iv) पूर्वाचार्यस्मरणम्

सदाशिवः शिवा ब्रह्मा भरतः कश्यपो मुनिः ।

मतङ्गो याष्टिको दुर्गाशक्तिः शार्दूलकोहली ॥१५॥

विशाखिलो दत्तिलश्च कम्बलोऽश्वतःस्तथा ।

वायुविभावसू रम्भाऽर्जुनो नारदतुम्बुरु ॥१६॥

3. Since the brahmins are entirely devoted to the pursuit of knowledge they are always in the need of money.
4. Liberation is the ultimate end of the art of music as understood in India. 'S' points out *prakaraṇa* songs such as *madraka* etc., that are mentioned subsequently in the text for this very purpose.
5. Threefold misery is suffering pertaining to the physical, mental and spiritual being.
6. *Dharma* is moral law, religion and duty appropriate to one's station in life.
7. *Saṅgīta* is also a medium of attaining liberation, through the vocal compositions known as *prakaraṇa-s* to be sung in the praise of Lord Śiva.

आञ्जनेयो मातृगुप्तो रावणो नन्दिकेश्वरः ।

स्वातिर्गणो बिन्दुराजः क्षेत्रराजश्च राहुलः ॥१७॥

रुद्रो नान्यभूपालो भोजभूवल्लभस्तथा ।

परमर्दो च सोमेशो जगदेकमहीपतिः ॥१८॥

व्याख्यातारो भारतीये लोल्लटोद्भूटशङ्कुकाः ।

भट्टाभिनवगुप्तश्च श्रीमत्कीर्त्तिधरः परः ॥१९॥

अन्ये च बहवः पूर्वे ये संगीतविशारदाः ।

अगाधबोधमन्थेन तेषां मतपयोनिधिम् ॥२०॥

निर्मथ्य श्रीशाङ्गदेवः सारोद्धारमिमं व्यधात् ।

(iv) The predecessors of the author : 15-21b

Śārṅgadeva, having churned, by the churning rod of his deep understanding, the ocean of the manifold viewpoints of previous music experts such as—Sadāśiva, Śiva, Brahmā, Bharata, sage Kaśyapa, Mataṅga, Yāṣṭika, Durgāśakti, Śārdūla, Kohala, Viśākhila, Dattila, Kambala, Aśvatara, Vāyu, Viśvāvasu, Rambhā, Arjuna, Nārada, Tumburū, Āñjaneya, Mātṛgupta, Rāvaṇa, Nandikeśvara, Svāti, Bindurāja, Kṣetrarāja, Rāhula⁸, Rudraṭa, King Nānyadeva, King Bhoja, (Paramardī⁹), Someśa the vanquisher of his foes, king Jagadeka and the interpreters of Bharata such as Lollaṭa, Udbhaṭa, Śaṅkuka, Abhinavagupta and Kīrtidhara—has brought out the cream¹⁰ of knowledge in the form of this book. (15-21b)

8. Ad. ed. of S. R. reads Rāhala. See Dr. V. Raghavan's article on "Some Names in Early Sangeet Literature", Sangeet Natak Academy Bulletin No. 6, May 1957.
9. Paramardī—cf. G. O. S. No. 45—*Bhāvaprakāśana* p. 73, of Introduction, conjecturing Paramardī, to be a man of letters and a king. *Paramardī* can also be an epithet of Someśa.
10. 'K' suggests that, by describing his work as the acme of the works of his predecessors, the author is pointing out the superiority of his work. However 'S' poses the question, "Since so many works do exist on the subject what then is the need for the author to write a new book?", to which he

(v) सङ्गीतलक्षणं, तत्र मार्गदेशीविभागश्च

गीतं वाद्यं तथा नृत्तं त्रयं संगीतमुच्यते ॥२१॥

मार्गो देशीति तद् द्वेषा तत्र मार्गः स उच्यते ।

यो मार्गितो विरिञ्चयाद्यः प्रयुक्तो भरतादिभिः ॥२२॥

देवस्य पुरतः शंभोर्नियताभ्युदयप्रदः ।

देशे देशे जनानां यद्रुच्या हृदयरञ्जकम् ॥२३॥

गीतं च वादनं नृत्तं तद्देशीत्यभिधीयते ।

(v) The definition of *saṅgīta*: its classification as *mārga* and *deśī* : 21c-24b

Gītam (vocal melody), *vādyam* (playing on instruments) and *nṛttam* (dancing), all the three together¹ are known as *saṅgīta* which is twofold, viz. *mārga*² and *deśī*. That which was discovered by Brahmā and (first) practised by Bharata and others in the audience of lord Śiva is known as *mārga* (*saṅgīta*), which definitely bestows prosperity; while the *saṅgīta* comprising *gītam*, *vādyam* and *nṛttam*, that entertains people according to their taste in the different regions, is known as *deśī*. (21c-24b)

replies that, "all these ancient works are too numerous and intelligible with great difficulty and therefore the author's attempt to present the essence of these works in a nutshell is worthwhile and creditable". Another purpose of the author in having referred to his predecessors as suggested by 'S' is that, Śārāṅgadeva, by having claimed to have taken the views of all these authorities into consideration, wants to prove the authenticity of his own work.

1. All the three are comprehended as different constituents of the same art, called *saṅgīta*. Etymologically the word *saṅgīta* means singing along with accompaniments and embellishments. The term *saṅgīta* is also used merely for music; but, that is a figurative use, taking container for the thing contained; or, taking the part for the whole.
2. The term *mārga* is etymologically explained by 'K' as derived from the Skt. root *mrg*, to seek. Thus *mārga* is the way, the technique or practice based on the findings of the investigation

(vi) गीतस्य प्राधान्यम्

नृत्तं वाद्यानुगं प्रोक्तं वाद्यं गीतानुवर्ति च ॥२४॥

अतो गीतं प्रधानत्वादत्रादावभिधीयते ।

(vi) The predominance of *gītam* : 24c-25b

Dancing is guided by instrumental music which, in its own turn, follows the vocal practice. Therefore, the vocal melody (i. e. *gītam*), being the main constituent (of *saṅgīta*) is expounded in the first instance. (24b-25c)

(vii) गीत-प्रशंसा

सामवेदादिदं गीतं संजग्राह पितामहः ॥२५॥

गीतेऽऽप्रीयते देवः सर्वज्ञः पार्वतीपतिः ।

गोपापतिरनन्तोऽपि वंशध्वनिवशं गतः ॥२६॥

सामगीतिरतो ब्रह्मा वीणाऽऽसक्ता सरस्वती ।

किमन्ये यक्षगन्धर्वदेवदानवमानवाः ॥२७॥

अज्ञातविषयास्वादो बालः पर्यङ्किकागतः ।

रुदन्गीतामृतं पीत्वा हर्षोत्कर्षं प्रपद्यते ॥२८॥

वनेचरस्तृणाहारश्चित्रं मृगशिशुः पशुः ।

लुब्धो लुब्धकसङ्गीते गीते यच्छति जीवितम् ॥२९॥

तस्य गीतस्य माहाऽऽत्म्यं के प्रशंसितुमोशते ।

धर्मार्थकाममोक्षाणामिदमेवैकसाधनम् ॥३०॥

carried out by Brahmā, the creator in the subject matter of the four Vedas (cf. नाट्यवेदमिमं वेदं सेतिसासं करोम्यहम्) as quoted by 'K'. So, by implication *mārga* means classical, while *deśī* means regional practice.

(vii) The importance and significance of *gītam* (melody): 25c-30

*Gītam*¹ (the vocal music) was extracted from the *Sāmaveda* and collected² by Brahmā. Omniscient God, the husband of Pārvatī (i. e., Śiva) is propitiated by *gītam* (i. e., singing); Kṛṣṇa, the lord of *gopī-s*, in spite of being infinite, was enamoured³ of the sound of the bamboo flute. When Brahmā (the creator) is devoted to *sāmagīti* (i. e., the hymns of the *Sāmaveda* sung in a particular style), and Sarasvatī is attached⁴ to the lute (*vinā*), what to speak, then, of other creatures, such as the *yakṣa-s*⁵ and of *gandharva-s*, the gods and the demons, and the human beings. An infant, crying in cradle, unaware of the enjoyment of objects, on tasting the nectar of a song, knows no bounds of joy. Even a fawn, an animal feeding on grass and moving in the forest, attracted by the song of a hunter, is ready to sacrifice its life. Who indeed can describe the grandeur⁶ of melody, for in fact, it is the only⁷ means for the realisation of the four

1. As suggested by 'K' the hymns of the *Sāmaveda* are sung in seven tones, viz. *kruṣṭa*, *prathama*, *dvitīya*, *ṭṭitīya*, *catūrtha*, *mandra* and *atisvārya*, and so is the present music based on seven tones of a different nomenclature.
2. 'K' suggests that since the creator himself has extracted *sāngīta* from the *Sāmaveda* it is open to all the four castes.
3. Lit. entrapped, charmed, confined.
4. That is, fond of Sarasvatī, the goddess of learning, who, in the Hindu mythology, is contemplated with a *vinā* in two of her four hands and is considered to be the presiding deity of fine arts.
5. *Yakṣa-s* and *gandharva-s* are semi-divine beings of mythological origin that have also found a place in poetic convention in Sanskrit literature. *Yakṣa-s* as demigods are considered to be the attendants of Kubera, the god of wealth, and guard his gardens and treasures; while *gandharva-s* are celestial singers.
6. Lit. the significance and importance.
7. Though there are definite means for the attainment of these values, music is a delightful medium of achieving the same ends. Vocal music is employed in the worship of the Divine almost universally. Thus it earns spiritual merit. 'S' further points out that, as mentioned in the text in the context of *jāti-s*, the proper use of *jāti-s* is instrumental to the attainment of *dharma*.

That music is a means of earning one's livelihood and wealth needs no explanation, and similarly it also serves as a

primary values of human life, viz. righteousness (*dharma*), wealth (*artha*), enjoyment (*kāma*) and emancipation (*mokṣa*). (25c-30)

(viii) ग्रन्थस्थसप्ताध्यायानां वस्तुसंग्रहः

तत्र स्वरगताध्याये प्रथमे प्रतिपाद्यते ।
 शरीरं नादसंभूतिः स्थानानि श्रुतयस्तथा ॥३१॥
 ततः शुद्धाः स्वराः सप्त विकृता द्वादशाप्यमी ।
 कुलानि जातयो वर्णा द्वीपान्यार्षं च देवतम् ॥३२॥
 छन्दांसि विनियोगाश्च स्वराणां श्रुतिजातयः ।
 ग्रामाश्च मूर्च्छनास्तानाः शुद्धाः कूटाश्च संख्यया ॥३३॥
 प्रस्तारः खण्डमेरुश्च नष्टोद्दिष्टप्रबोधकः ।
 स्वरसाधारणं जातिसाधारणमतः परम् ॥३४॥
 काकल्यन्तरयोः सम्यक्प्रयोगो वर्णलक्षणम् ।
 त्रिषष्टिरप्यलङ्कारास्त्रयोदशविधं ततः ॥३५॥
 जातिलक्ष्म ग्रहांशादि कपालानि च कम्बलम् ।
 नानाविधा गीतयश्चेत्येतावान्वस्तुसंग्रहः ॥३६॥
 अथ रागविवेकाख्येऽध्याये वक्ष्यामहे क्रमात् ।
 ग्रामरागांश्रोपरागान्रागान्भाषा विभाषिकाः ॥३७॥
 ततोऽप्यन्तरभाषाश्च रागाङ्गाण्यखिलान्यपि ।
 भाषाऽङ्गाण्यप्युपाङ्गानि क्रियाऽङ्गाणि च तत्त्वतः ॥३८॥
 ततः प्रकीर्णकाध्याये तृतीये कथयिष्यते ।
 वाग्नेयकारो गान्धर्वः स्वरादिर्गायनस्तथा ॥३९॥

medium of entertainment apart from affording aesthetic delight; e. g., music is employed to heighten the sentiment of love. So, music serves as means to the realisation of the two other values, viz., wealth and enjoyment. Finally, music is a means to spiritual emancipation when it is practised in the spirit of dedication, e. g. in the case of songs like *madraka* given in the text subsequently (Chap. V.).

गायत्री गुणदोषाश्च तयोः शब्दभिदास्तथा ।
 गुणदोषाश्च शब्दस्य शारीरं तद्गुणास्तथा ॥४०॥
 तद्दोषा गमकः स्थाया आलप्तिवृन्दलक्षणम् ।
 ततः प्रबन्धाध्याये तु धातवोऽङ्गानि जातयः ॥४१॥
 प्रबन्धानां, द्विधा सूडः शुद्धश्छायालगस्तथा ।
 आलिक्रमप्रबन्धाश्च सूडस्था आलिसंश्रयाः ॥४२॥
 विप्रकीर्णास्ततश्छायालगसूडसमाश्रिताः ।
 गीतस्था गुणदोषाश्च वक्ष्यन्ते शाङ्गसूरिणा ॥४३॥
 तालाध्याये पञ्चमे तु मार्गतालाः कलास्तथा ।
 पाता मार्गाश्च चत्वारस्तथा मार्गकलाऽष्टकम् ॥४४॥
 गुरुलघ्वादिमानं चककलत्वादयो भिदाः ।
 पादभागास्तथा मात्रास्ताले पातकलाविधिः ॥४५॥
 अङ्गुलीनां च नियमो भेदा युग्मादयस्तथा ।
 परिवर्तो लयास्तेषां यतयो गीतकानि च ॥४६॥
 छन्दकादीनि गीतानि तालाङ्गनिचयस्तथा ।
 गीताङ्गानि च वक्ष्यन्ते देशीतालाश्च तत्त्वतः ॥४७॥
 निःशङ्कशाङ्गदेवेन तालानां प्रत्ययास्तथा ।
 षष्ठे नानाविधं वाद्यमध्याये कथयिष्यते ॥४८॥
 सप्तमे नर्तनं नानारसभावाः क्रमेण च ।

(viii) Synopsis of the work: 31-49b

Now in the first chapter concerning svāra¹ (tone) etc., the topics of study are :

(i) human embodiment², ←

1. 'K' explains *svāragata* in *svāragatādhyāya* as स्वरानुगताः स्वरगताः श्रुतिपामा—etc, i. e. the topics pertaining to *svāra* such as *śruti*, *grāma*, *mūrccanā* and so on dealt with in this chapter.
2. Human embodiment is discussed in this context because human body is the instrument of voice production, i. e. the manifestation of *hāda*.

- (ii) the process of sound production (in the body),
- (iii) the places (of sound production, i. e., the three registers),
- (iv) the *śruti-s*³ (micro-tones),
- (v) the seven *śuddha*⁴ (standard) *svāra-s* (notes or tones) along with twelve *vikṛta*⁵ (modified forms),
- (vi) the family, caste, colour, terrestrial region, originator sage, presiding deity, metre and the proper application⁶ of each of the *svāra-s*,
- (vii) the generic groups of *śruti-s*,
- (viii) the *grāma-s* (basic scales),
- (ix) the *mūrccanā-s*⁷ (modified prototype scales),
- (x) the *śuddha*⁸ and *kūṭa tāna-s* (specific combinational and permutational note-series) with their number,
- (xi) the *prastāra*⁹ (sequential permutation),
- (xii) the *khaṇḍameru*¹⁰ (permutation indicator),

3. *Śruti-s* are the twentytwo/divisions of the scale of seven notes, to be defined and demonstrated later in the text.

4. *Śuddha svāra-s* are the seven tones of a definite pitch comprehending 4, 3, 2, 4, 4, 3 and 2 *śruti-intervals* respectively.

5. *Vikṛta-svāra-s* comprise these very seven tones with more or less modified pitch in the terms of *śruti-intervals*, explained later in the text.

6. *Viniyoga* indicates the proper context in the terms of dramaturgy and aesthetic delight, i. e., *rāsa* for which a particular melody is employed. See *Rāgadhya* (Chapter II) for illustrations.

7. Series of seven notes in ascending and descending order, commencing with different notes.

8. In the ancient sense, when one or two notes are omitted from a scale, in the act of singing, it becomes a *tāna*; and if such omission does not alter the order of the rest of the notes, it is called a *śuddha tāna*, while *kūṭa-tāna* is related to the permutation of notes in groups of two to seven.

9. *Prastāra* represents an actual working out of these various permutation and combination patterns.

10. *Khaṇḍameru* is the name of a mathematical device in the form of a numerical graph which indicates *naṣṭa* and *uddiṣṭa*, where the former points out the particular permutation for a given number and the latter gives the number of a given permutation, to be explained subsequently in the text. (63-70 of Sec. IV)

- (xiii) the *svāra-sādhāraṇa*¹¹ (overlapping in note-intervals),
- (xiv) the *jāti-sādhāraṇa*¹² (overlapping in *jāti-s*),
- (xv) the proper use of *kākalī-niṣāda*¹³ and *antara-gāndhāra*,
- (xvi) the definition of *varṇa*¹⁴ (colour or pattern of tonal movement),
- (xvii) sixtythree *alāṅkāra-s*¹⁵ (patterns of tonal phrases),
- (xviii) the thirteen characteristic features of *jāti-s*¹⁶ (melodic types), *graha* (initial note), *amśa*¹⁷ (fundamental note) etc.,
- (xix) the *kapāla* and *kambala* songs, and
- (xx) the various types of *gīti-s*¹⁸.

These form the collection of topics under study. (31-36)

In the chapter entitled 'Rāgaviveka' (lit. the discernment of *rāga-s*) we shall respectively speak of :—

Grāmarāga-s, *uparāgo-s*, *rāga-s*, *bhāṣā-s*, *vibhāṣā-s*, *antara-bhāṣā-s* and *rāgāṅga-s* in full detail and the *bhāṣāṅga-s*, *upāṅga-s* and the *kriyāṅga-s*, in their essentials. (37-38).

11. *Svārasādhāraṇa* is defined later in the text; but here it would suffice to say that it comprehends a pitch interval that is commonly incorporated by both the tones involved.
12. Among the *jāti-s* of the same *grāma* having the same tone as the fundamental note, the identical melodic presentation that obtains between them is called *jāti-sādhāraṇa* (See 10-11b of Sec. V).
13. *Antaragāndhāra* and *kākalī-niṣāda* are the pitch-intervals obtaining in the *svāra-sādhāraṇa*, located at the distance of 2 *śruti-s* from *gāndhāra* and *niṣāda* respectively.
14. *Varṇa* signifies 'type of tonal movement', viz. ascending, descending, etc.
15. *Alāṅkāra* signifies a melodic phrase, a definite arrangement of *varṇa-s*.
16. *Jāti* represents the first written record of a scientific study of the melodic patterns that later on developed into *rāga*-structures. *Jāti*, therefore, is conceived as an archetype of melodic patterns, the mother of *rāga-s*.
17. *Graha* and *amśa* are specific notes of a *rāga*-structure which are defined later in the text.
18. *Gīti* signifies the act of singing, comprehending the tonal, rhythmic and verbal structure of a musical composition.

Then in the chapter entitled 'Prakṛṇaka' (lit. miscellaneous) will be described :—

- (i) *Vāggeyakāra*¹⁹ (master composer),
- (ii) *Gāndhāra*,²⁰
- (iii) *Svārādi*²¹
- (iv) Songster,
- (v) Songstress and
- (vi) the good and bad characteristics of the two (i. e., iv & v),
- (vii) the classification of voice and
- (viii) the good and bad qualities of voice,
- (ix) *Śāstra*²² and its
- (x) good and bad qualities,
- (xi) *Gamaka*²³ (shaking on tones), i. e., grace,
- (vii) *Sthāya*²⁴ (specific features of tonal rendering),
- (xiii) *Ālapti*²⁵ and
- (xiv) the nature of group performance. (39-41b)

The following topics will be dealt with by the learned Śarṅgadeva in the fourth chapter entitled 'Prabandha'²⁶ (musical composition) :

19. *Vāggeyakāra*, a master composer, is capable of composing not only the tonal structure of a musical composition but also the verbal structure, i. e., the text of the melody.
20. One who is proficient in *mārga* as well as *deśī* music, is called *gāndhāra*.
21. *Svārādi* is the performer of *deśī* music only.
22. *Śāstra* is peculiarly an Indian concept and has no counterpart in western terminology. The author elsewhere defines it as "the built-in capacity of voice (or the entire organism responsible for the production of voice) for musical application (or for the delineation of a *rāga* etc.) without any training" (cf. S.R. III. 82).
23. *Gamaka* is a graceful shake.
24. *Sthāya* is an organic part (*avayava*) of *rāga*. (See S.R. III 97c-98).
25. *Ālapti* is the delineation of *rāga*.
26. *Prabandha* is a musical composition, but in this chapter, the author deals with only vocal compositions and their classifications.

- (i) *Dhātu-s*²⁷ (sections)
 (ii) *Aṅga-s*²⁸ (integral parts)
 (iii) *Jāti-s*²⁹ (classes) } of vocal composition
- (iv) the twofold *sūḍa*, viz. *śuddha* and *chāyāḷaga*, and
 (v) *Ālikrama*-compositions rooted in the *sūḍa* and depending on *āli*
 (vi) *Viprakīrṇa*³⁰ compositions, depending on *Chāyāḷaga sūḍa*, followed by
 (vii) the good and bad qualities inherent in vocal performance (41c-43).

In the fifth chapter entitled '*Tāla*'³¹ (the cyclic time-figure) we shall essentially speak of—

- (i) The *mārga-tāla-s*
 (ii) *Kalā-s*³² (inaudible movements of the hand)
 (iii) *Pāta-s*³³ (audible movements of the hand)

27. *Dhātu*, literally means a basic element and this expression seems to have been borrowed from *Ayurveda* (cf. verse 71 of Section 2). Here it signifies 'section' of a musical composition which basically refers to its tonal aspect in contrast with its syllabic content or the non-tonal aspect called *mātu*. The constitution of *prabandha* has been conceived on the analogy of an organic body like that of a human being. A *prabandha* may have 2 to 5 *dhr̥tu-s*, the average being 4, i. e. *udgrāha dhr̥va*, *melāpaka* and *ābhoga*, the fifth being *antara*.

28. *Aṅga*, literally means a part of an organic body; here, an integral part of a musical composition. *Prabandha* is said to have six limbs (i. e., organs), viz. two feet, i. e., *svāra* and *tāla*; two eyes, i. e., *paḍa* and *tena*; and two hands, i. e., *pāḷa* and *biruda*. We can have two to six of these in a piece.

29. That is, generic classes of vocal compositions, viz. *medint* etc., five in number, based on the number of *aṅga-s* used in a composition.

30. *Viprakīrṇa*-miscellaneous, i. e., apart from those enumerated above.

31. *Tāla* signifies cyclic movement in time and is popularly known as the 'time beat'. The author classifies *tāla* as *mārga* and *deśi* and speaks of five *mārga-tāla-s* and 120 *deśi-tāla-s*.

Tāla literally is derived from the Skt. root *tal-* to establish. So, in *tāla* are established (i. e., based) the three arts of singing, playing on musical instruments and dancing. *Tāla* is the measure of time that regulates action in music.

32. *Kalā*, in this context is defined as *niḥśabda-kriyā*, i. e., soundless act (beat).

33. *Pāta* is defined as *saśabda-kriyā*, i. e., act, accompanied with sound (beat).

- (iv) *Mārga-s*³⁴ (styles)
 (v) the eight *mārgakālā-s* (i. e., *mātra-s*, viz. *dhr̥vakā* etc.)
 (vi) the standard measure of *guru* (long) and *laghu*³⁵ (short)
 (vii) the varieties beginning with *ekakala* etc.
 (viii) the *pādabhāga-s*³⁶
 (ix) the *mātra-s*³⁷ (fixed units of time)
 (x) the technique of *pāta*³⁸ and *kālā* in *tāla*
 (xi) the regulation of fingering
 (xii) the varieties such as *yugma* etc.
 (xiii) *Parivarta*³⁹ (the repetition of *pāda* divisions)
 (xiv) *Laya-s*⁴⁰ (tempo or musical speed)
 (xv) and their *yati-s* (orders of *laya*)
 (xvi) *Gitaka-s*⁴¹
 (xvii) *Chandaka gita-s*⁴²
 (xviii) the group of *tālāṅga-s*, and

34. *Mārga-s* in this context signify the four ways, viz. *dhr̥va* etc., in which a particular time-beat cycle can be executed.

35. *Laghu* and *guru* signify, primarily, effort in pronouncing a syllable. In metres regulated by the number of syllabic instances—one instance or *mātra*, is allotted to a short vowel and two to a long one. A syllable is that part of a word that can be pronounced at once, i. e., a vowel with or without one or more consonants.

36. A unit of two or four *guru-s*.

37. *Mātra* signifies a unit, a standard time-measure of a beat-cycle.

38. *Pāta* roughly signifies a beat that sounds and *kālā*, a beat that does not sound.

39. *Parivarta* signifies repetition of *pādabhāga* etc.

40. *Laya* is tempo, i. e. space in-between the beats. 'S' defines it as the time interval in the act of beating, while *yati* signifies a scheme of sequence in *laya-s*.

41 & 42. Seven (or fourteen) song-patterns known as *madraka* etc. are called *prakarṇakāhya gita-s* which are predominantly based on *tāla* and are said to be sung in the praise of lord Śiva for obtaining (spiritual) emancipation.

unit
of tempo

(xiv) *gītaṅga-s*(xx) *Deśī tāla-s*⁴³(xxi) the *pratyaya-s* (tabular formulas for finding out the serial number and the structural form of *tāla-s* (44-48b)

In the sixth chapter will be described numerous musical instruments, while in the seventh chapter, we shall deal with dancing and the various *rasa-s* (types of aesthetic delight) and *bhāva-s* (modes of being) in due order. (48c-49b).

अथ द्वितीयं पिण्डोत्पत्तिप्रकरणम्

क. विषयावतरणम्

(i) नादमहिमा

गीतं नादात्मकं वाद्यं नादव्यक्त्या प्रशस्यते ।

तद्द्वयानुगतं नृत्यं नादाधीनमतस्त्रयम् ॥ १ ॥

नादेन व्यज्यते वर्णः पदं वर्णात्पदाद्वचः ।

वचसो व्यवहारोऽयं नादाधीनमतो जगत् ॥ २ ॥

Section 2

The Genesis of the Human Embodiment

A. Introduction :

(i) The importance of *nāda* : 1-2

*Nāda*¹ is the very² essence of vocal music. Instrumental music is enjoyable³, as it manifests *nāda*. *Nṛtta* (dance)

Having presented a synoptical view of the proposed work, the author proceeds to describe the genesis of human embodiment. What is the relevance of such a topic in a music treatise? It is indeed exceptional that Śārṅgadeva has considered it necessary to deal with this subject matter which concerns embryology and physiology of human body. He could do so, for he was himself a physician; and he thought

1. *Nāda*, as already stated, is primordial sound considered by some of the schools of Indian Philosophy, specially *Yoga* and *Tantra*, to be the primary cause of the phenomenal world. Of the five basic elements, earth, water, fire, air and ether, perceived correspondingly by the senses of smell, taste, vision, touch and hearing, ether is the most pervasive and the cause of the rest. Sound is considered to be the manifestation of *nāda*, which is described as *Nāda-brahman* and is thus equated with the absolute of the *Upaniṣads*.
2. That is, the intangible substance which manifests itself through the articulate sound. The manifest refers to the unmanifest by implication.
3. Literally *prafasyate* means, 'is praised'; but, 'S' rightly interprets it as '*ramantyaṭam upaiti*', i e., attains the excellence of beauty, becomes enjoyable as beautiful.

43. 120 *deśī-tāla-s* such as *ūdi-tāla* etc. have been enumerated by Śārṅgadeva.

follows⁴ both (i.e., vocal and instrumental music); therefore, all the three⁵ together depend on *nāda*. (1)

it fit to do so because human body provides the required circumstance and instrumentation for the production of voice and vocal melody. Just as some study of physiology is necessary for understanding the process of voice production in the science of voice culture, so also, our author finds it necessary to investigate the genesis of human embodiment. This is indicated by him in the first few verses of this section.

However, Śārāṅgadeva does not seem to be the only writer on music of his times, who has considered it worthwhile to deal with the subject of human embodiment. Śāradātanaya, who is almost a contemporary of Śārāṅgadeva (cf. Introduction to *Bhāvaprakāśanam*, G.O.S. No. XLV, Baroda, p. 76, wherein he is placed between 1175-1250 A.D.), and whose work mainly concerns poetics and deals with music as a subsidiary art to dramatics, also mentions in the beginning of the seventh Chapter the process of creation according to the Kashmir Śaivism and *Tantra*, the process of human embodiment (albeit very briefly as compared to S.R. and rather somewhat differently) and voice production in the body. Attention would be drawn to some of his theories in Section 3 of this Chapter, and a note pointing the salient features of his account of the embodiment is given at the end of this topic (vide comments on 119).

It is, however, interesting to note that he designates the subject matter significantly as *geya-samulpatti* (the creation of vocal music). Geya is the technical word for melodic structure. Therefore, his treatment of the subject is quite differently oriented. With him the description of the phenomenal world or of the physical body is incidental to what he calls *geya-samulpatti*. And he describes it because *geya* (in the sense of music) is a means of realising the four values of life, viz. *dharma*, *artha*, *kāma* and *mokṣa*—i.e. social and moral good, economic prosperity, enjoyment and spiritual emancipation (cf. p. 182 *Bhāvaprakāśanam*).

4. In the ancient Indian aesthetic concept of *rāsa* and beauty, *saṅgīta*, comprises the three arts of vocal and instrumental music and dance. The statement is, therefore, to be understood in that context. 'S' quotes, *aṅgēnlambayed gītam*, i.e., 'song should be supported by the gesture', to support and to elucidate the statement, which becomes intelligible if *saṅgīta* is considered to be a composite art of singing, playing on instruments and dancing.

5. The word *trayam* of the text brings out the composite nature of *saṅgīta*.

*Nāda*⁶ manifests the letters (of alphabet), letters constitute the word,⁷ and words make a sentence; so, the entire business of life is carried on, through language⁸; and therefore, the whole phenomenon (i. e., the world) is based on *nāda*.⁹ (2)

Nāda is the basis, not only for music and dance, though specially related to it, but of the entire business of life; since it constitutes the very substance of speech which is the only means of communication. The implication, as derived by 'K' is that, the fact that *nāda* is the very basis of all manifest life, makes it more important and relevant for the author to deal with the subject of the genesis of the human embodiment.

(ii) द्विविधो नादः, पिण्डोत्पत्तिप्रतिपादनौचित्यम्

आहतोऽनाहतश्चेति द्विधा नादो निगद्यते ।

सोऽयं प्रकाशते पिण्डे तस्मात्पिण्डोऽभिधीयते ॥ ३ ॥

(ii) Twofold *nāda* : 3

Nāda is said to be twofold, viz., produced¹ and unproduced. Since it manifests itself in the human body, the (process of) embodiment is being described. (3)

6. *Nāda*, here, means sound, i. e., articulation of consonant letters in conjunction with vowels; 'S' interprets *nāda*, in this context, as '*dhvani*' and explains it as the sound which is not distinguished in terms of *varṇa-s*, i. e., the particular articulations of sound symbolised by the letters of alphabet, but which is heard from afar and is responsible for the perception of high and low pitch associated with letters.

7. *Pada* in Sanskrit is a meaningful word, i. e., a word with a relational value.

8. Lit. sentence which is accepted to be the unit of language.

9. Cf. Br. D. verses 16-20, quoted by 'S', for similar import.

1. *Ahata* of the text literally means 'struck' and *anahata* literally means 'unstruck.' The idea is that *nāda* has two forms, viz., the created and the uncreated, the former being an object of sense perception and the latter a matter of mystic experience of *Yoga* in which sound and light are fused together and there is direct perception.

ख. पिण्डोत्पत्तौ दार्शनिकतत्त्वनिरूपणम्

(i) ब्रह्मस्वरूपम्

अस्ति ब्रह्म चिदानन्दं स्वयंज्योतिर्निरञ्जनम् ।

ईश्वरं लिङ्गमित्युक्तमद्वितीयमजं विभुः ॥ ४ ॥

निर्विकारं निराकारं सर्वेश्वरमनन्धरम् ।

सर्वशक्ति च सर्वज्ञम्,

B. Genesis : The metaphysical viewpoint.

(i) The nature of *Brahman* : 4-5c

Brahman is existence¹, blissful² awareness, the self-luminous³ and taintless⁴ supreme⁵ deity, said to be the ulti-

Human body is a part and parcel of the manifest phenomenon. To trace the process of the genesis of human embodiment, the author begins with the unmanifest, unconditioned, timeless reality; and explains the emergence of numberless individuals, their relationship with the reality, and the principle determining the differences inherent in the individual manifestations of that pure existence.

1. *Asti Brahman* of the text literally rendered would mean, 'there is *Brahman*'; but the word 'there' has to be used for the convenience of the syntax of English language, there being no corresponding idea implied in the text. So *Brahman* is the essence of all existence, the is-ness.
2. The concept of *Brahman*, best expounded in the Advaitic school of the *vedānta* system of Indian philosophy, visualises three aspects of *Brahman* in the well-known phrase—'Saccidananda' which refers to the unitary character of pure being, pure intelligence and pure bliss. Though *Brahman* is devoid of all qualities, these are the essential features in terms of which the time-less reality is comprehended through language. *Cidananda* is 'bliss', as distinguished from the duality of feeling in terms of pain and pleasure, which is possible in awareness, the operation of pure intelligence.
3. *Svayamjyotiḥ* of the text literally means that which is a light unto itself, i. e., the one that requires no external power to manifest itself.
4. That is without any blemish, absolutely pure, free from ignorance.
5. The word *Īvara* of the text etymologically is derived from the root 'īśa', to control, and literally means the controller, the ruler. But, since here it is used in the context of vedantic

mate⁶ cause, the non-dual⁷, unborn⁸, measureless⁹, unmodified¹⁰, formless, imperishable, omnipotent and omniscient 'supreme ruler'¹¹. (4-5c)

(ii) जीवस्वरूपम्

, तदंशा जीवसंज्ञकाः ॥ ५ ॥

अनाद्यविद्योपहिता यथाऽग्नेर्विस्फुलिङ्गकाः ।

दार्वाद्युपाधिसंभिन्नास्ते कर्मभिरनादिभिः ॥ ६ ॥

सुखदुःखप्रदः पुण्यपापरूपेर्नियन्त्रिताः ।

तत्तज्जातियुतं देहमायुर्भोगं च कर्मजम् ॥ ७ ॥

प्रतिजन्म प्रपद्यन्ते,

parlance, following in the wake of *Brahman*, it is used to denote *Saguṇa-Brahman*, i. e., *Brahman* qualified by the power of universal consciousness; and therefore, is equivalent to God or the personal deity. *Īvara* is defined as one who is capable of doing, not doing or doing otherwise.

6. *Līngam* is defined by 'K' as *Prapañcalayanāllīngam*, i. e., that in which the dissolution of the phenomenon takes place. *Brahman* is said to be the cause of the origination, sustenance and the dissolution of the creation.
7. *Advaitya* is a negative epithet, i. e., it negates duality but does not affirm oneness, for any positive statement presupposes its opposite, e. g., one implies many, so *Brahman* is non-dual, i. e., incomparable, inconceivable. 'S' interprets it as devoid of internal and external differentiation.
8. That is timeless existence.
9. *Vibhu* means pervasive, unlimited.
10. Yaska (*Nirukta* I. 1.1.2, p. 23) has spoken of six modifications of existential being, i. e., coming into being, being in existence, growing, disintegrating, decaying and destruction. *Brahman* is free from these modifications.
11. That is, the God of the gods, the controller of all the natural forces.

In the text this expression appears after 'formless' and not at the end as given in the translation for syntactic convenience.

(ii) The nature of jīva (individual being): 5d-8a

Its relative¹ manifestations called *jīva-s*, delimited by the beginningless² nescience, are like the sparks of fire, differentiated by the circumstances³ of wood etc. (5d-6c)

Here the author elucidates the essential nature of the individual beings and their relationship with the source of all manifestation. As the sparks are identical with fire in essence and yet have an individual identity in form, so also the individual beings are limited manifestations of the unlimited *Brahman*, distinguishable from each other by the exigencies of existence caused by the unawareness of the totality of being, the substratum of individual existence. Thus the relationship between the manifest individual and the unmanifest, unconditioned reality is that of identity in difference. 'S' admits of another interpretation as well. He lays emphasis on the word *amśa* of the text and points out the fact that, since the individuals are conceived as parts and are admitted to be many, their relationship with *Brahman* is the one that subsists between the parts constituting the whole. 'K' interprets *amśa* as *mātrā*, i.e., a partial manifestation.

However, *amśa* cannot be interpreted merely as a part, for the concept of *amśa* implies an incomplete or partial manifestation of the whole, i.e., it must be understood that the part in this context necessarily implies the whole. So the part is not essentially different from the whole, though a limited manifestation of the whole.

1. An *amśa* as explained above, is a partial manifestation of the whole, i.e., a relative entity. This in fact is a unique relation, and when actually comprehended, transcends every form of relationship. So each implies all.
2. 'Time' is a relative concept, and it is only in the relative existence that time has significance; in the absolute, time has no value, since it is timeless. Nescience is said to be beginningless, i.e., causeless, since it has no real value in terms of being. Nescience is unawareness of the total being and is responsible for delimiting awareness in the consciousness of the individual, and thus bringing time into being. So being anterior to time, it can have no beginning in time.
3. Fire arising out of different kinds of wood gives rise to the sparks of a different colour or intensity; so, the sparks are not different from fire in so far as heat is the essence of both; but, yet, they are different with reference to the circumstance of their being due to the difference in the kind of wood that is the material cause of the fire. Thus the individuals differ in the form of their conditioning; but, are the same in so far as all are conditioned manifestations of awareness which by itself is unlimited.

Governed by their beginningless actions⁴, virtuous as well as evil, productive of pleasure and pain, they (*jīva-s*) attain, in every⁵ birth, to a physical body associated with appropriate genus⁶, life-time and enjoyment, as a consequence of their unfructified⁷ accumulated action. (6d-8a).

Here the author accounts for the variety in the form of individual beings so very characteristic of our creation. Nescience being the basis of individuation, action proceeding from it is also of the same order, i. e., beginningless. Since the nescience is itself the cause of time, individual differences cannot be accounted for in time, nor the differences are caused by any divine agency for God, though conceived to be the substratum of the nescience, is, by that very reason, unaffected by it. So, the differences in individual beings are taken to be a given fact and explained by the law of *karma*. *Karma* is incomplete partial action which necessitates a process of time-space for its completion. A seed when sown takes time to grow into a tree and bear some fruit. Thus sowing of the seed is a part of the whole process of a fruit-bearing tree. Another implication of the statement is that, since the actions of the individuals are beginningless, the differences characterising their being must ultimately be traced to the nescience, which is impersonal and beginningless. Thus the problem of the origination of good and evil is shifted from the individual level to the universal level.

This is a unique concept which avoids the problem of the origination of evil, being attributed to divine authorship and also the individuals are absolved from having good or evil as their inherent quality. Good and evil actions alike are the product of nescience, which is beginningless but not endless, since it can be ended by right knowledge or self-awareness. Thus, nobody is eternally damned and everybody can hope for salvation.

4. Since the nescience, responsible for the sense of doership in the individual, is beginningless, the actions proceeding from that mentality are also spoken of as beginningless.
5. Many births are visualised for an individual; and this involves the theory of reincarnation. A thought body enduring till final emancipation is spoken of in the next verse. In every birth the individual is endowed with the suitable physical vehicle necessitated by his action.
6. The individual may be born in any kingdom, viz., vegetable kingdom, animal kingdom, etc. in their species, i. e. various animals, or among human beings, in different classes, occupied with different vocations, since the enjoyment of life is related to it.
7. The Skt. word *karma* is difficult to translate. The word is derived from the root *kr* meaning 'to do', and denotes action, work, vocation, etc., in general. But in the context of reincarnation and the law of *karma* associated with it, *karma* is incomplete action, unspent force involving a time process for

(iii) सूक्ष्मशरीरम्

, तेषामस्त्यपरं पुनः ।

सूक्ष्मं लिङ्गशरीरं तदामोक्षादक्षयं मतम् ॥ ८ ॥

सूक्ष्मभूतेन्द्रियप्राणाऽवस्थाऽऽत्मकमिदं विदुः ।

(iii) The subtle body : 8b-9b

They are also possessed of another (subtle body)¹, which is considered to be indestructible² till emancipation³, and is known to be made of the (essence of the five great) elements⁴, the senses⁵ (*indriya-s*) and the vital⁶ breaths in their subtle⁷ form. (8b-9b)

The physical gross body is obviously subject to decay and is destroyed in course of time; how then, is the individual reborn in another body? Anticipating the question, the author declares that an individual, apart from his physical body, is possessed of another subtle body that is made up of very fine matter which is not directly perceived by our senses, since it constitutes the very essence of the five elements etc. This (thought) body, so to say, is ideal and transmigrates from one birth to another. But even this subtle body is destroyed at the time of liberation which is the state of unconditioned intelligence or pure consciousness.

1. *Linga śarīra* is the subtle body which endures the death of the physical body and becomes responsible for a new birth.
2. Indestructible in the relative sense; for it lasts as long as there is craving in any form, and craving is caused by nescience which is dispelled by right knowledge. When the individual is free from craving, he no longer is held in this body and becomes one with reality.
3. Ad. ed. reads *tādā mokṣād* etc. instead of *tad-ā mokṣād* etc.
4. That is earth, water, fire, air and ether.
5. 'K' enumerates only sense-organs, while 'S' also includes the five motor organs known as *karmendriya-s* and the mind, under the import of the word *indriya* of the text.
6. Five types of the vital breath spoken of later in this Section.
7. Subtle form is that which is imperceptible by the senses.

(iv) सृष्टिसंहार-प्रवाहः

जीवानामुपभोगाय जगदेतत्सृजत्यजः ॥ ९ ॥

स आत्मा परमात्मा च विश्रान्त्यै संहरत्यथ ।

तदेतत्सृष्टिसंहारं प्रवाहानादि संमतम् ॥१०॥

(iv) The cycle of creation and destruction : 9c-10

The unborn¹ one creates this world for the enjoyment² of the individual beings; and that *Ātman*,³ the universal self,⁴

Having stated what the nature of reality is, and the relationship of reality as a whole with the fact of individual beings, now the author proceeds to relate the nature of phenomenon, the fact of the ephemeral world and its relationship with its substratum, the timeless being, the causeless which is unborn. Whereas the phenomenon is essentially transitory (that is, it comes into being, continues for a certain time and returns to its source), the source, the reality is causeless, beyond time, eternal. The phenomenon of the world is created out of the measureless eternity and is dissolved back into it. Such is the relationship of the unmanifest and the manifest, which is beginningless, an eternal play of the Lord.

1. Being eternal the cause of creation is causeless. The Skt. word *aja* of the text literally means 'unborn' and is a familiar epithet of *Brahman* in the vedāntic texts.
2. Why does the creation take place? For the enjoyment of the individual beings that constitute the creation. The creator has no motive; so creation is a spontaneous movement. The Skt. word *bhoga* is neutral and includes all experience, pleasant as well as painful. Thus, it is the individual beings who are involved in the duality of opposites in experience, for the creator, creation is sportive action.
3. That *Ātman*, refers to *Brahman*, the unborn. The word *Ātman*, by itself stands for reality behind all experience; and is in this sense synonymous with the word *Brahman*. However, when the word *jīva* is prefixed to it, it refers to the individual being, and when the word *parama* is prefixed to it, it means the universal being, God.
4. *Paramātman* is the super-self. *Ātman* with reference to the individual beings that are conditioned by nescience indicates the substratum of reality that sustains the illusion of individuality; while with reference to the creator it indicates the substratum of reality supporting the entire phenomenon. Thus, *Paramātman* is the supreme self, i. e., the self of all the beings.

withdraws it for the sake of rest⁴: thus, the order of creation and dissolution is believed to be an incessant flow.⁶ (9c-10)

(v) जीवब्रह्मणोः सम्बन्धः

ते जीवा नात्मनो भिन्ना भिन्नं वा नात्मनो जगत् ।
शक्त्या सृजन्नभिन्नोऽसौ सुवर्णं कुण्डलादिव ॥११॥

सृजत्यविद्ययेत्यन्ये यथा रज्जुर्भुजङ्गमम् ।

(v) The relation of *jīva* and *Brahman* : 11-12b

These individual beings are not different¹ from the *Ātman*, neither is the world² different from it; for, creating by its own power³, it is non-different (from its creation),

5. 'K' suggests that, since creation takes place for the enjoyment of the individual beings, it is withdrawn by the creator also for the rest of the individual beings. Since the creator, being the substratum of the phenomenon, is not affected by the duality of pain and pleasure and for him creation is sportive, he needs no rest.
6. *Anādi* of the text means beginningless. The idea is that creation and dissolution do not take place in time, since time itself is a part of creation. The world process is thus conceived to be an incessant flow. 'K' suggests that the world has a beginning with reference to the particular, i. e., individual manifestations only, viz a son is born and has a beginning but the universal, i. e., the process of regeneration has no beginning.
1. The individuals are considered here in the relationship of the constituents and the constituted, i. e., *anśaṅśibhāva*, and are thus essentially non-different from i. e., identical with *Ātman*, reality.
2. The world too is conceived to be non-different from *Ātman*, since the creator and the creation are understood to be in the relationship of cause and effect, i. e., *kāryakāraṇabhāva*. This relationship as well as the above one is accepted by the *Bhedābheda* school of the *vedānta* system of Indian philosophy.
3. According to the *Bhedābheda-vedānta* philosophy, the creator creates the universe by its own power and therefore is not essentially different from its creation, just as the sunshine is not essentially different from the sun.

just as gold⁴ is non-different from (its products such as) ear-ring etc.; according to others, however, it creates through nescience as the rope (gives rise to) the snake.⁵ (11-12b)

Now the author is presenting the whole picture of the creator and the creation; the relationship of the creator, the created beings and the world is that of identity in difference—identity with reference to substance and diversity with reference to form, just as ornaments made of gold are gold in substance and are yet called by different names such as ear-ring, bracelet, etc. The visible differences belong to the phenomenon and not to the reality manifested through it. However, as it would be clear from the analogy of gold and ornaments, creation in this view involves a transformation of reality.

The other view regarding the relationship of the creator and the creation does not accept the phenomenon to be a transformation of reality, rather it conceives it as an illusion based on individual nescience. According to this view the nature of phenomenon is essentially illusory, even though the substratum of the phenomenon is real. So phenomenon is only an appearance of the real caused by the limitations of individuality. The stock example of, 'the snake appearing in a piece of a rope due to darkness', is a popular analogy to explain this particular relationship. Here, the non-existence of the snake is realised in the existence of the rope; similarly the true significance of appearance is realised only in the experience of reality.

(vi) भौतिकसृष्टिः

आत्मनः पूर्वमाकाशस्ततो वायुस्ततोऽनलः ॥१२॥

अनलाज्जलमेतस्मात्पृथिवी समजायत ।

महाभूतान्यमून्येषा विराजो ब्रह्मणस्तनुः ॥१३॥

4. Gold is not different from the ornaments made out of it, as far as the substance is concerned, and yet, they are different in form with reference to each other. So the creation is not different with reference to the creator, the perceptible difference being relative in the manifest world.
5. As the rope, acting as the substratum gives rise to the illusion of the snake appearing in it; so also, through ignorance and the power of illusion, *Ātman*, acting as the substratum, gives rise to the illusion of the phenomenon of duality.

ब्रह्म ब्रह्माणमसृजत्तस्मै वेदान्प्रदाय च ।

भौतिकं वेदशब्देभ्यः सर्जयामास तेन तत् ॥१४॥

तदाज्ञयाऽसृजद् ब्रह्मा मनसेव प्रजापतीन् ।

तेभ्यस्तु रेतसो सृष्टिः शरीराणां निरूप्यते ॥१५॥

(vi) The physical manifestation : 12c-15

From *Ātman*¹ emanated, ether², first³ of all, followed⁴ by air, fire, water and earth in their respective order. These are the great elements⁵, and they constitute the body of *Brahman*, then called *virāj*.⁶ (12c-13)

Having elucidated the metaphysical basis of reality and appearance, the creator and the creation and their mutual relationship, now the author proceeds to describe the order of physical emanation and the manifestation of nature etc. In Indian philosophy, the manifest phenomenon as perceived through the five senses is classified into the five basic elements, called *mahābhūta-s*, which term is translated here as 'great elements'. These elements are not necessarily the equivalents of the English words ether etc. used here; but, since there is roughly a similar tradition in Greek philosophy, these terms have tentatively been considered acceptable. However, in essence *ākāśa* means that objective

1. That is because *ātman* has been spoken of as being the cause of the phenomenon. *Ātman* is obviously taken as synonymous with *Brahman*.
2. *Ākāśa* is translated as ether, because that is the general practice; and also because there is no other proper word for it in the English language.
3. Ether is the first evolute from which other elements evolve later in their respective order.
4. The word '*tataḥ*' of the text, means 'thereafter'. The doctrine of the physical evolution, represented here, holds that from *Ātman* or *Brahman* emanates ether, from ether air, from air fire, from fire water and from water is evolved earth; and accordingly, they are dissolved back one by one unto *Brahman*.
5. *Mahābhūta-s*, the great elements represent the gross manifestation of *Brahman* before *pañctkaraṇa* (amalgamation).
6. *Brahman*, as conditioned by these universal elements is known as *virāj*. The word *virāj* literally means luminous, splendour. It is held in this doctrine that *Brahman*, having created the five universal elements, entered into them. The physical world has no existence apart from the intelligent principle; and thus, no real difference is conceived between the creator and the creation.

*Brahman*⁷ created *Brahmā* and having handed over the *veda-s*⁸ to him, it caused⁹ him to create the physical world

reality, which is the substratum of sound perceived by the ear; *vāyu* denotes the element through which the perception of touch takes place; *anala* (also called *agni* or *tejas* etc.) is the element that is responsible for the perception of colour; *jala* is the element that is responsible for the perception of taste; and *pṛthivī* is the element that produces the perception of odour. Thus these elements are conceived on the basis of five types of perception to which they respectively correspond. These elements are quite different from the elements of modern science.

Then, these elements produce the physical universe, which is essentially perceptive and has consciousness as its basis, by the process of permutation and combination in various proportions, known as *pañctkaraṇa* in vedāntic parlance. That, however, involves too great a divergence from the subject of this text.

This physical universe is conceived to constitute a body, a form, to *Brahman*, the formless; who therefore is given a different name viz., *Virāj* to distinguish it from the unconditioned *Brahman*.

Brahman, conditioned by the five universal elements, called *Virāj* is not yet in the position to create the physical world; since the elements are in the state of equilibrium before the process of *Pañctkaraṇa* takes place, i.e., before they intermingle in ratio and proportion. But the act of creation is possible through *Brahman* only while it is conditioned by the universal elements in terms of physical manifestation, and by the universal nescience, in terms of psychological manifestation. Thus, even though the author has not clearly stated in the text, it is implied

7. 'K' identifies *Virāj* with the four faced *Brahmā* of the *purāṇa-s* and thus attributes the act of creation directly to the unconditioned *Brahman*, '*Brahma virāḍrupam Brahmaṇam catur-mukham asṛjat*'. However, this does not accord well with the metaphysical doctrine of *Bhedābheda* system.
8. *Brahmā* is a symbolic figure of the puranic mythology, having four faces. Each of his faces is supposed to give expression to each of the four vedas. He is considered to symbolise the creative aspect of *Brahman* in the trinity of *Brahmā*, *Viṣṇu* and *Śiva*, the last two being responsible for the maintenance of the creation and the dissolution of the phenomenon. Obviously, the author is presenting a synthesis of the vedic and the puranic traditions.
9. That is how *Brahman* is the final cause, though it is *Brahmā* who actually creates, yet he is inspired by *Brahman* to do so.

through¹⁰ the words of the *veda-s*. (14)

By his¹¹ command Brahmā created through¹² his mind, the *Prajāpati-s*¹³, and from them the seminal¹⁴ creation of bodies is being expounded.¹⁵

in the context that *Brahman*, as conditioned by the five universal elements created Brahmā, the progenitor of all the beings and the physical world inhabited by them. However, the *Veda* proclaims *Virāj* to be the first progeny of *Puruṣa*; *Tasmād Virāḥajayata* (Rv. 10.90.5). But then in vedic mythology, Brahmā possibly has no such place. Thus obviously, our author has synthesised the concept of *Virāj* and *Brahmā* in this doctrine. In this context *Brahman* is not differentiated from *Virāj*, which has been spoken of as *Saguṇa-brahman* in the puranic parlance. Indeed, perhaps that is why 'S' has equated *Brahman* of this verse with *Īśvara* of the *vedānta* philosophy.

10. The creation takes place through the word, as codified in the *vedas*. The *vedas* in the Indian tradition are considered to be 'apauruṣeya', i.e., literally, beyond human authorship. Since creation and dissolution in the author's view form a unitary movement, the creation takes place through the word of the *vedas* which, through the process of association give rise to the form as ideas in the universal mind, which then creates the world according to those ideas, the latent seeds.
11. That is, *Virāj*; it is notable that here 'K' also interprets it as such.
12. That is, by his will power.
13. Literally, the word *prajāpati* means the lord of creatures, of all the created beings. There have been many *prajāpati-s* and their number differs from seven to twenty-one, according to different accounts. *Prajāpati* originally seems to be a god of the vedic hymns who was later raised to the status similar to that of *Brahmā* in the *sūtra-s*. But later in the *purāṇa-s*, the word *prajāpati* became more or less an appellation of the founders of the great dynasties such as *Marīci*, *Atri*, *Āṅgiras*, *Pulastya*, etc. However, in the present context *prajāpati-s* are conceived as the mental progeny of the creator, *Brahmā*.
14. *Relas*, literally means 'semen', but the expression is metaphorical and signifies the product of copulation, i. e., the creation that takes place as a result of the opposites coming together.

(vii) भौतिकदेहभेदाः

स्वेदोद्भेदजरायवण्डहेतुभेदाच्चतुर्विधम् ।

देहं यूकाऽऽदिनः स्वेदाद्बुद्भेदात्तु लताऽऽदिनः ॥१६॥

जरायोर्मानुषादीनामण्डात्तु विहगादिनः ।

(viii) मानुषदेहाभिधाने हेतुः

तत्र नादोपयोगित्वान्मानुषं देहमुच्यते ॥१७॥

(vii) Types of physical bodies : 16-17b

The body is of four types, depending on the nature of its cause, viz., sweat, sprout, womb¹ and egg; such as louse etc., from sweat, creeper etc., from the sprout, human being etc., from the womb and birds etc., from the egg.² (16-17b)

(viii) The purpose of dealing with the human body: 17cd

Of the above (four), the human body¹, being suitable for (the manifestation of) *nāda* is dealt with (here). (17cd)

The Āyurvedic classification of the manifestation of life is substantially different and quite comprehensive. It comprehends life under three main heads, viz., *jāṅgama* (animals), *audbhid* (plants) and *parthiva* (minerals). The *jāṅgama* (animal class) is subdivided into *jarāyuja*, *aṇḍaja*, *svedaja* (all the three given in the text) and *udbhijja*, the last of which comprises of animals in hybernation etc. that remain unmanifest for a certain period of time concealed in the soil, and develop only during particular seasonal conditions. The author has identified the vegetable kingdom with *udbheda* rather than the fourth category of animals spoken of in the Āyurvedic tradition. The inclusion of creepers etc. under types of bodies does not seem to be as scientific as the *udbhijja* class of *Āyurveda*. The author's classification, however, appears to follow the puranic tradition.

1. The word *jarāyu* of the text precisely means the outer layer of foetus, and technically refers to the viviparous creatures.
2. Ad. ed of S. R. reads "aṇḍatta" instead of "aṇḍattu" wherein *tu* seems to have been used as a conjunctive.
1. That is why the author has introduced this section on human embodiment in a musical treatise. Also, this provides the reason for dealing with the human body only from out of the four types.

(ix) जीवस्य गर्भाशयेऽवतरणम्

क्षेत्रज्ञः स्थित आकाश आकाशाद्वायुमागतः ।
 वायोर्धूमं ततश्चाभ्रमभ्रान्मेघे ऽवतिष्ठते ॥१८॥
 आहुत्या ऽऽप्यायितो प्रस्तरसो ग्रीष्मे च भानुभिः ।
 भानुर्मेघे घनरसं निधत्ते तं वलाहकः ॥१९॥
 यदा वर्षति वर्षेण सह जीवस्तदा भुवः ।
 वनस्पत्योषधीर्जाताः संक्रामत्यविलक्षितः ॥२०॥
 ताम्यो ज्ज्नां जातमन्नं तत्पुरुषः शुक्लतां गतम् ।
 शुद्धार्तवाया योषाया निषिक्तं स्मरमन्दिरे ॥२१॥
 संहर्तवेन शुद्धं चेद्गर्भाशयगतं भवेत् ।
 जीवकर्मप्रेरितं तद् गर्भमारभते तदा ॥२२॥

(ix) The descent of *jīva* into the womb : 18-22

The self-aware¹ intelligence, the resident² of ether, descends into air; and from air into smoke, from smoke into

The embodied self, i. e., the self-aware intelligence, has already been spoken of as having two bodies, subtle and gross. Here the process of the physical, i. e., gross embodiment is being described, and therefore, the thought-body is taken for granted to be existent in the form of etheric vibrations as the residue of past incarnation of the individual self or soul who is called *kṣetrajña*, which signifies intelligence involved in the self-conscious individual being.

1. The word *kṣetrajña* of the text literally means the knower of the field, i. e., the observer, the witness of the field of consciousness. The word *kṣetra* also means an abode; so, by implication the word signifies the body. *Kṣetrajña* thus means the soul or intelligence as conditioned by self-consciousness; and here, the word is used in this technical sense. cf. Bh. Gītā XII. 1 & 2. "This organism, oh! Arjuna, is named as *kṣetra* (the field); and the one who is aware of it is called as *kṣetrajña* (the perceiver of the field) by the experts." (13.1)

Thus *kṣetra* and *kṣetrajña* may roughly be understood as the field of consciousness and consciousness subsisting in the awareness of the field. The deeper significance of these terms would be clear from the next verse.

"Oh, Arjuna, understand that I am the *kṣetrajña* (intelligence) in all the *kṣetra-s* (organisms). The comprehension of the body and the soul is considered to be my knowledge."

2. It is assumed that thought body is made of subtle matter in

cloud-formation³ and from the cloud-formation into the cloud. (18)

The sun, being satiated⁴ by the oblations and surrounded by vapours drawn by its rays in the summer,⁵ confines the waters in the clouds. When the clouds release the waters, the self-conscious intelligent being,⁶ descending with the showers, transfers itself imperceptibly⁷ to the terrestrial growth of trees and herbs. This⁸ (vegetation) becomes food; and when eaten by men, is transformed into semen; which, being sprinkled in the temple⁹ of love in the body of a young

The process of the descent of the thought-embodied intelligence into the physical human organism follows the general pattern of the evolution of the five great elements, viz., from ether to air, from air to fire as associated with smoke, and from fire to water as associated with cloud, and from water to earth, through vegetation. Having entered the vegetation it remains a matter of course for it to reach an appropriate womb for its physical encasement.

3. *Abhra* of the text signifies a cloud-formation devoid of water, so to say, a combination of smoke, light and air, while *Megha* signifies the cloud proper full of water.
4. In the Indian tradition the sun is offered oblations in the sacrificial fire. The gods, in this view, have nothing to eat in their heavenly abode and have to be nourished through the sacrificial oblations offered by human beings.
5. This is significant in the context of Indian climate. The sun is supposed to draw the waters of the Indian ocean in summer through the sun's rays that fall directly upon it and collect them in the clouds, and this is a statement of a geographical fact, the phenomenon of monsoon.
6. *Jīva* is conceived to be pure intelligence conditioned by self-consciousness.
7. Since consciousness is not an object of sense perception, the journey of the soul from the thought body to the physical body is imperceptible outwardly.
8. What is notable here is that the self-aware intelligence or, in other terms, the individual soul can never keep an identity without a physical vehicle. So in fact the whole journey is a process of the movement from a purely ideal body to a physical one. Thus it is also a process of evolution or manifestation from the subtle to the gross. Food also is a vehicle for the self-enclosed consciousness and so is semen into which it is transformed.
9. The temple of love spoken of here refers metaphorically to the vagina.

ग. पिण्डोत्पत्तावायुर्वेदानुसारि निरूपणम्

(i) गर्भस्य वृद्धिक्रमः

द्रवत्वं प्रथमे मासि कललाख्यं प्रजायते ।

द्वितीये तु घनः पिण्डः पेशीषद्वनमर्बुदम् ॥२३॥

पुंस्त्रीनपुंसकानां स्युः प्रागवस्थाः क्रमादिमाः ।

तृतीये त्वङ्कुराः पञ्च कराङ्घ्रिशिरसो मताः ॥२४॥

woman in her proper course¹⁰, on entering the uterus, if¹¹ pure, unites with ovum: and then, being¹² impelled by the accumulated residual action of the individual, it begins to develop into the foetus. (19-22).

C. Genesis : The physiological viewpoint

(i) The development of the embryo : 23-41

In the first month a gelatinous substance (called *kalala*) comes into being; in the second a hardened mass in the form

Now, the author goes on to describe the various stages through which the embryo develops during the entire period of pregnancy and connected matters. From a comparative study of the monumental works of Indian medicine and surgery by Caraka and Suśruta, it appears that our

10. Literally, *suddhartava* means pure menstrual discharge. This refers to the suitable period of the monthly course, i. e., the particular days after the menses, considered as opportune for the union of the sperm and the ovum. But, more than that, the *suddhartava* of the text refers to the ideal physical fitness of a woman for conceiving a child. The test for the required purity of the blood of the menstrual flow as quoted by 'K' is that it should be of the colour, as red as the solution of lac or its spots on cloth should be capable of being washed clean. The word *artava* technically means the catamenial fluid.
11. The semen should also be of a certain standard. As, 'K' quotes, semen to be fit for procreating should be strong, heavy, viscous, sweet and profuse.
12. According to the Hindu view of life, fertilisation of a sperm and an ovum is not a mechanical process, but the soul destined to be embodied in the foetus is the intelligent force guided by its residual action (*Karma*), without which no conception can materialise.

अङ्गप्रत्यङ्गभागाश्च सूक्ष्माः स्युर्गुणपत्तदा ।

विहाय श्मश्रुदन्तादीञ्जन्मानन्तरसंभवान् ॥२५॥

एषा प्रकृतिरन्या तु विकृतिः संमता सताम् ।

चतुर्थे व्यक्तता तेषां भावानामपि जायते ॥२६॥

पुंसां शौर्यादयो भावा भीरुत्वाद्यास्तु योषिताम् ।

नपुंसकानां संकीर्णा भवन्तीति प्रचक्षते ॥२७॥

मातृजं चास्य हृदयं विषयानभिःकाङ्क्षति ।

अतो मातुर्मनोऽभीष्टं कुर्याद्गर्भसमृद्धये ॥२८॥

तां च द्विहृदयां नारीमाहुदौहृदिनीं बुधाः ।

अदानाद्दोहदानां स्युर्गर्भस्य व्यङ्गताऽऽदयः ॥२९॥

मातुर्यद्विषयालाभस्तदार्तो जायते सुतः ।

गर्भः स्यादर्थवान्भोगी दोहदाद्राजदर्शने ॥३०॥

अलङ्कारेषु ललितो धर्मिष्ठस्तापसाश्रमे ।

देवतादर्शने भक्तो हित्तो भुजगदर्शने ॥३१॥

गोधाऽशने तु निद्रालुर्बली गोमांसभक्षणे ।

माहिषे शुकरक्ताक्षं लोमशं सूयते सुतम् ॥३२॥

प्रबुद्धं पञ्चमे चित्तं मांसशोणितपुष्टता ।

षष्ठे ऽस्थिस्नायुनखरकेशरोमविविक्तता ॥३३॥

बलवणौ चोपचितौ सप्तमे त्वङ्गपूर्णता ।

पाल्यन्तरितहस्ताभ्यां श्रोत्ररन्ध्रे पिधाय सः ॥३४॥

उद्विग्नो गर्भसंवासादास्ते गर्भाशयान्वितः ।

स्मरन्पूर्वानुभूताः स नानाजातोश्च यातनाः ॥३५॥

मोक्षोपायमभिध्यायन्वर्तते ऽभ्यासतत्परः ।

अष्टमे त्वक्स्मृतौ स्यातामोजश्चेतश्च हृद्भवम् ॥३६॥

शुद्धमापीतरक्तं च निमित्तं जीविते मतम् ।

पत्नरम्बां पत्नर्गर्भं चञ्चलं तत्प्रधावति ॥३७॥

अतो जातो षष्ठमे मासि न जीवत्योजसोज्झितः ।
 किञ्चित्कालमवस्थानं संस्कारात्स्वण्डिताङ्गवत् ॥३८॥
 समयः प्रसवस्य स्यान्मासेषु नवमादिषु ।
 मातु रसवहां नाडीमनुबद्धा पराऽभिधा ॥३९॥
 नाभिस्थनाडी गर्भस्य मात्राहाररसावहा ।
 कृताञ्जलिर्ललाटे ऽसौ मातृपृष्ठमभि स्थितः ॥४०॥
 अध्यास्ते संकुचद्गात्रो गर्भं दक्षिणपार्श्वगः ।
 वामपार्श्वस्थिता नारी क्लीबं मध्यस्थितं मतम् ॥४१॥

of a ball¹, a tendon² or an egg³, indicative of the preliminary stage of the male, female and a eunuch respectively. In the third month emerge the five⁴ organic⁵ seedlings, viz., hands, feet and the head. (23-24)

author, who is known to be a medical practitioner himself, has based this Section of his work mainly on these two authorities, though he also seems to have consulted subsequent literature on the subject. Therefore parallel references are offered here for a detailed and authoritative study

1. *Piṇḍa* of the text corresponds to a lump which is stated by 'K' to be round. 'S' connects *piṇḍa* with *peṣṭi* and interprets that, if the *piṇḍa*, in the sense of a lump of flesh, is like a *peṣṭi*, then it is indicative of a male issue; and consequently further he interprets *ṣaḍghana*, i.e., 'slightly in a solid condition' to be indicative of a female child; and *arbudam*, i.e., 'like a bud of a tamarind tree' to be indicative of neutral gender. But obviously this construction does not seem to be correct, specially in the light of Suśruta and Caraka.
2. *Peṣṭi* is not in so solid a condition as to form a lump. So it is like a muscle more or less. K.R. says, *peṣṭi* is a square piece. The word *peṣṭi* also means foetus shortly after conception.
3. *Arbudam*: 'K' asserts that *arbudam* is of the shape of a bud of tamarind tree according to the physicians. The word literally, in this context, means a long round mass, tumor like; but here, it has been used in a technical sense.
4. Two hands, two feet and the head, technically make the five. However, as suggested by 'K', the seedling of the head includes the neck, two eyes, two nostrils, two ears, etc. as its parts; the seedling for hands includes, shoulders, elbow, wrist fingers, wrist, etc. and the seedling for feet includes thighs, knees, legs, ankles, toes etc.
5. *Aṅkura* of the text literally means a sprout or a seedling but

Apart from the beard, teeth and the like, that grow after the birth, an imperceptible⁶ and simultaneous development⁷ takes place in all the limbs, sub-organs and their parts. This is the natural course⁸, while anything contrary to it is considered by the wise to be unnatural⁹. (25-26 b)

In the fourth (month) these (organs) are distinctly developed; and so also the mental states¹⁰ come into being, such as valour among men, timidity among women and

of the particular topics dealt with in this Section. Obviously, Śārṅgadeva has been not only very precise but also very brief in his presentation, as indeed he everywhere is, throughout his entire work.

In the first month the sperm as united with the ovum forms into a jelly-like substance in a liquid condition, the five elements of which, under the impact of cold, heat and wind solidify in the second month into a mass. This mass, according to our author, forms in three shapes, viz. a ball-like round shape, a tendon like oblong, and an egg like oval shape, each of which indicates respectively the masculine, feminine and the neuter gender. This is the rudimentary stage and the sex of the embryo can, on this basis, be distinguished even in the second month. This view is based on Caraka and Suśruta (cf., Śā. Sthā 4.9 10 and 3.18-19 respectively).

In the third month five protuberances appear in the solidified mass of flesh at the five places where the five organs have to be, while the minor limbs and their parts are formed in the shape of very minute papillae (cf., Caraka Śā. Sthā. 4.11 and Suśruta Śā. Sthā. 3.20).

In the fourth month all the limbs and the organs and parts thereof are fully developed. Since the viscus of the heart too is developed and

6. The process of growth is slow and uniform, that is why it is said to be imperceptible.
7. That is, the entire growth takes place as soon as the seedlings have sprouted.
8. *Prakṛti* is natural disposition or tendency, so uniform development is the natural course of growth.
9. *Vikṛti* is deformation, any development that takes place contrary to the order of nature with respect to the process of growth in the viviparous animals.
10. 'K' interprets the word *bhāva*, here, in the sense of latent tendency; obviously, latent in the causal body and manifesting itself now in the physical body. *Bhāva* is a state of being, a subject in relationship with a situation.

indistinctiveness¹¹ among hermaphrodites; that is, how it is said.¹² (26c-27)

The heart of the embryo is a product of its mother¹³ and so it craves for enjoyment.¹⁴ Therefore the wishes of the mother should be respected¹⁵ for the growth¹⁶ of the foetus. (28)

the heart is considered to be the seat of consciousness, the embryo is endowed with feeling, so much so that the desire for enjoyment is awakened in it, which operates through the longing of the mother (cf., *Suśruta Śā. Sthā. 3.21*). Our author is suggesting that the embryo is capable of mental states such as valour and timidity. But these are taken as examples, what is important to note is that it is the fourth month itself that endows the embryo with consciousness and craving for experience.

The heart of the embryo is fashioned after the heart of the mother as the author tells subsequently (verse 45) in this Section and here too. The word heart is symbolic of the faculty of conation, of feeling and will, of emotion and desire. 'K' interprets the text to mean that the heart of the embryo as well as that of the mother beat in unison; they form a unity, analogous to that of the twins. So the enceinte is named twin-hearted. The cravings of the mother and the child are related in identity

11. The word *saṅkīrṇa* of the text literally, in this context, means 'petty', undeveloped, closed, i. e., devoid of manly or womanly predilections.
12. Obviously, the author is not sure of the scientific basis for this concept, so he attributes it to the general opinion as it was prevalent.
13. According to 'K' the heart of the embryo (as well as of the mother, the two being one in essence) desires, craves for particular sensations. Literally, the text reads "its heart is a product of its mother."
14. *Viśayān* of the text literally means sense objects. The embryo cannot possibly have a longing for the sense objects, for he does not perceive them. So it is the heart of the mother enjoined to that of the embryo that desires sense objects. But indeed, since the embryo is endowed with consciousness it is supposed to have longings for particular sensations which the mother can relate to particular sense objects by intuition or the suggestions of the subconscious mind.
15. That is, as far as possible the wishes of an enceinte should be fulfilled.
16. *Samśuddhi* of the text literally means enrichment, i. e., physical and mental growth, i. e., development.

Such a woman with two hearts (as it were) is called twin-hearted by the wise. If the wishes of pregnancy¹⁷ are not respected, deformity of organs may occur in the embryo; for whatever is denied to the enceinte becomes a cause of discomfort¹⁸ to it (the embryo).¹⁹ (29-30b)

If the pregnancy wish²⁰ pertains to royal audience, the child²¹ would be wealthy, reveller of enjoyments and fond of ornamentation²², if it pertains to visiting a hermitage, the child would be of righteous disposition; if it pertains to visiting a temple²³, the child would be a devotee (of

and therefore the unfulfilled desires of the enceinte (pregnant woman) are likely, not only to cause mental complications in her mind, but those complexes react on the consciousness of the embryo, so much so that the nongratification of any desire for a particular sensation during gestation tends to adversely affect that particular sense organ of the child (cf., *Suśruta Śā. Sthā. 3.21*). The fulfilment of such desires is conducive to a healthy progeny.

There is a very close relationship between the mother and the foetus, and this relationship is not only physiological but also psychological; this latter aspect is sought to be demonstrated by detailing the effect of

17. *Dohada* of the text technically, means the wishes of an enceinte, and the objects of those wishes are also called *Dohada-s*.
18. The text literally interpreted would mean 'By whatever (object of enjoyment) the mother is deprived, the child born is ill-formed by it (i. e., not properly developed with reference to that particular sense organ).
19. Literally translated, it is the 'son', for a male issue is generally desired.
20. The longings and wishes of the enceinte during the period of gestation have been named as 'pregnancy wishes', i.e., the *dohada-s* of the text.
21. Lit. the son.
22. K.R. translates the first line of verse 31 as—"If she spends her time) in the hermitage of sage, (he will be) indifferent to ornaments and devoted to virtue", obviously, he construes '*alambkāreṣu lalitaḥ*' with '*dharmigḥastāpasaśrame*'. It is, however, not clear why it can be so construed.
23. *Devatā-darśana* of the text literally means a desire for being in direct communion with a deity. In view of the widespread image worship in India, obviously the desire can only pertain to visiting the deity as represented by an idol in a temple. The word *darśana*, in India, is used in the most profound sense of communion, as well as, 'having a look at'.

God); if it pertains to seeing a snake, the child would be violent in nature; if it pertains to eating (the flesh of) an alligator²⁴, the child would be addicted to sleep; if it pertains to eating beef, the child would be strong, if it pertains to eating buffalo meat, the child²⁵ would have red eyes like those of a parrot and a hairy body. (30c-32)

The consciousness awakens in the fifth (month) and there is sufficient addition to flesh and blood. In the sixth (month) the bones, sinews²⁶ nails, hair on the head and the limbs²⁷ appear distinctly and there is an augmentation of energy²⁸ and complexion. In the seventh (month) the completion of organs takes place. (33-34b)

the mental conditions, desires, and longings of the enceinte during the period of gestation on the nature of the child after its birth. Much of what has been said seems to be based on Suśruta with minor variations (cf., Śā. Sthā. 3. 26-34), where it is suggested towards the end of this topic that the pregnancy wishes of the enceinte are not so much due to the personal disposition of the mother, as due to the cumulative effect of the incomplete action (*karma*) of the child in previous lives.

In the fifth month, the thought body is revived and intelligence begins to function through the mind. In other words, there is an awakening of consciousness in terms of self-awareness. According to 'K' the inner instrument, i.e., the mind which was dormant, opens up to the movement of life, i.e., becomes sensitive. When this particular statement (33ab) is read in conjunction with verse no. 35, it becomes

24. The dictionary meaning of the word *godhā* is alligator. But K.R. has rendered it as 'wheat', which does not seem to be very significant, since wheat forms a staple food, more or less for all; and moreover it is difficult to say how he derives this meaning.
25. Again literally, the text would mean 'the son'.
26. The dictionary meaning of the word *snayu* is tendon, sinew, muscle. 'K' interprets it as *sūkṣma śirā*. *Śirā* generally stands for any tubular vessel but specifically for vein: thus, he means a subtle vein. Sinew is a fibrous tissue uniting muscle to bone. It seems that even 'K' means sinew by his subtle vein.
27. *Keśa* and *roma* are hair on the head, and all over the body, respectively. Probably we do not have separate words to indicate this difference in English.
28. *Ojas* of the text not only means physical strength but also vigour or energy in general, including splendour consequent upon a full bloom of the organism.

The embryo, with the cavities of ears covered by its hands held in-between the two thighs, being afflicted by its stay in the environment of the womb, recalls the experiences of past lives along with the torments of various types, and contemplating²⁹ the means of freedom, remains self-absorbed. (34c-36b)

Skin and memory³⁰ develop in the eighth month. *Ojas*³¹ the essence of vitality, pure and of yellowish red hue,

clear that the author points out the psychological process of the revival of the thought body, the subtle vehicle that survives the death of the gross body but remains inactive till the fifth month of gestation. It is said, as it is implied in the text that, the individual soul witnesses the revival of the experiences, the torments and the unfulfilled desires of past lives and slowly gains self-awareness. Being self-aware, the self-conscious individual tired of remaining in the closed atmosphere of foetus, contemplates upon the means of release from the womb; and thus, cooperates with the mother in her mental disposition of delivering the child safely (cf., Caraka Śā. Sthā. 4.21-23 and Suśruta Śā. Sthā. 3.33-37).

Incidentally, the author also reveals the position of the embryo at this stage of the development in the womb, which, as 'K' points out, is upside down with limbs drawn in, the ear-cavities being covered by hands held in-between the two thighs.

It is worthwhile to compare this period of gestation as dealt with by Caraka and Suśruta (cf., Śā.Sthā. 4. 21-23 and 3.35-37 respectively). For the fifth month, Caraka agrees only as far as addition to flesh and blood is spoken of, and maintains that the enceinte feels languor particularly in this month. According to him, this process continues in the sixth month on a greater scale. In the seventh month the foetus is complete in all the elements physical as well as psychological, and the enceinte feels greatly fatigued. Suśruta speaks of mental awakening in the fifth month and the development of the intellect in the sixth month, while in the seventh, all the organs and the suborgans of the body are fully and distinctly developed.

29. The line 36ab of the text has been translated with the underlying idea in view.
30. 'S' reads as *loakśruti* instead of *loakṣmṛti* which is a text variant. The significance of this reading has been related above.
31. 'S' explains *ojas* as an essential element, while 'K' explains it

residing in the heart³² and considered to be the sustaining force of life, being unstable, fluctuates rapidly in-between the mother and the foetus; that is why the eighth month issue, being deprived of the life-force, does not survive³³; and if it does for a while, it is due to the force of momentum, like a dismembered limb. (36c-38)

Thus, the author seems to have relied on these sources put together as far as the physiological details of embryology are concerned. But he has supplemented this account with the essentials of corresponding purāṇic tradition (cf., *Sṛmad-bhāgavatam* III. 31) as far as the psychological and the philosophical aspects of the origin and development of the life-principle are concerned.

The author has already spoken of complexion in the sixth month and of past recollections in the seventh month; thus, under the circumstance, 'K' raises the question as to why he once again speaks of the skin and memory; and then he offers to explain that, in the eighth month the skin becomes compact and thick and memory brings in the element of choice, i.e., the operation of will. However, 'S' reads *śruti* instead of *smṛti*. He therefore interprets that the embryo is able to listen to outside sounds, and he rather warns us not to identify *śruti* with the sense of hearing.

In the Ayurvedic system, *ojas* is considered to be the principle of vital warmth and action throughout the body. It is difficult to identify this life-principle in terms of modern anatomy. However, the statement of the author is well-supported by Caraka and Suśruta (cf., Śā. Sthā. 4.24 & 3.38 respectively). 'K' elucidates *ojas* as 'bright pithy, substance' which is said to be pure in so far as it is not vitiated by the impurities of the atmosphere outside the body. It is slightly of yellowish tinge on a red base, and is produced by and resides in the heart; its function is to regulate and to support the movement of the vital breath in the body. The purport of the text is that in the eighth month the life principle, i.e., the vital force that regulates the flow of the vital breath, becomes unsteady and alternately moves from the embryo. Consequently, as explained by 'K', if the child is born in the eighth month while the vital force is residing with the mother, the

32. Produced by the heart in the sense that it resides in the heart, according to 'K'.

33. That the eighth month issue does not live, does not necessarily imply the completion of the 8th month for the child to live, but implies rather the death of either the child or the mother as explained above.

The parturition³⁴ takes place after the ninth³⁵ month commences. (39 ab)

The placenta³⁶ of the foetus is joined to the lymphatic vessels³⁷ of the mother by the umbilical cord, through

child dies as soon as it is born; but if the vital force is with the child at the time of delivery, it is the mother who dies; and in case the vital force is in transit, both the mother and the child may not survive. 'K.R.' finds in this statement a probable explanation of still birth. To a possible objection that sometimes the eighth month issues are also observed to be alive for some time after their birth, the author offers an explanation: just as when a limb is cut off from the body, it keeps on throbbing for sometime due to the momentum of the breath left in it, so also the child born in the eighth month, even though devoid of the vital force in its entirety, yet lives for sometime, its organism having been vitalised by it shortly before the delivery; in other words, it lives till the momentum of the vital force lasts.

What is the normal time for the delivery of the child, is the question considered here. Delivery, according to our author, may normally take place any time after the ninth month commences. The expression *navamādi* in the text implies, as noted by 'K', that it may even take place in the tenth or in the eleventh month as well. This contention seems to be supported by Suśruta (cf., Śā. Sthā. 3.39) who even visualises the possibility of parturition taking place in the twelfth month in exceptional cases, beyond which he declares it to be indicative of something wrong. Caraka too seems to be of the same opinion (cf., Śā. Sthā. 4.25). He says that the ninth month would commence even after one day upon the completion of the eighth month, and that the delivery can take place normally from the ninth to the twelfth month, beyond which something wrong must be inferred. Obviously all agree as to the minimum period of gestation, which is eight completed months.

34. The delivery of the child.

35. *Navamādi* of the text implies literally beginning with the ninth month (from conception).

36. Placenta is defined in the dictionary as, flattened circular spongy vascular organ in higher mammals, expelled in parturition after nourishing foetus which is attached to it by umbilical cord. *Parā-nāḍī* is identified with placenta.

37. *Rasavahā nāḍī* etymologically means the vein or artery carrying assimilated food.

which the essence of lymph-chyle³⁸ produced from the assimilated food of the mother enters into its organism. (39c-40b)

With hands folded⁴⁰ over the forehead and the limbs flexed⁴¹, the embryo stays by the mother's back. As it is believed, if it is in the right side of the womb, it is a male⁴², if in the left side, a female and if in the centre, a hermaphrodite. (40e-41)

Here, the process by which the foetus is nourished is described, though not in sufficient detail. The translation of this passage presents the essential fact. Literally rendered the text would read:—

“The mother's *rasavaha nāḍī* is joined to the *parā-nāḍī* that originates from the navel and carries mother's assimilated food to the foetus.” Suśruta (Śā. Sthā. 3.40) reads in substance as under—“The umbilical cord (*nāḍī*) of the foetus is found to be attached to the cavity of the vein or artery of its maternal part through which the essence of lymph-chyle (*rasa*) produced from the assimilated food of the mother, enters into its organism and fastens its growth and development (a fact which may be understood from the analogy of percolation or transudation of blood). Immediately after the completion of the process of fecundation, the vessels (*dhamanī*) of its maternal body which carry the lymph-chyle (*rasa*) and run laterally and longitudinally in all directions tend to foster the foetus with their own transudation all through its continuance in the womb.”³⁹

The author is describing here, the position of the embryo in the parturient's womb and the process of parturition. As regards the position of the embryo in the womb and its relationship to the sex of the child, it appears that the author is referring to a generally accepted idea as it is implied by his expression '*matam*'.

38. *Rasa*, in this context, means the solution of the assimilated food.
39. Reproduced from Eng. trans. by Kaviraja Kunjalal Bhishagratna, M.R.A.S. Vol. II, pub. Chowkhamba Sanskrit Series Office, Varanasi, India.
40. Folded in the posture of salutation.
41. The limbs are not stretched but are contracted and drawn in together, flexed.
42. The sense is implied in the text.

(ii) बालकस्य जन्म

क्रियते ऽघःशिराः सूतिमास्तैः प्रबलंस्ततः ।
निःसार्यते रुजद्गात्रो यन्त्रच्छिद्रेण बालकः ॥४२॥

(iii) जीवस्य नित्यता (अनुमिता)

जातमात्रस्य तस्याथ प्रवृत्तिः स्तन्यगोचरा ।
प्राग्जन्मबोधसंस्कारादिति जीवस्य नित्यता ॥४३॥

(ii) The birth of the child: 42

As it is turned upside down by the strong force of the parturition¹-winds it² is ejected through the vagina, its limbs being afflicted (through the passage). (42)

(iii) The eternity of *Jīva* (inferred): 43

Immediately (after the birth), the newborn baby has the tendency of sucking at the breast due to the psychological impressions of past life, and this incidentally proves the immortality of the soul. (43)

The author draws our attention to the inborn tendency of the newborn baby to suck at the mother's breast. The question is, who trains or educates and informs the baby to perform this act. It is almost instinctive and mechanical. The author therefore infers, by deduction, the habit built up in the past lives, and thereby he concludes that the death of the physical organism does not mean the total annihilation of the individual. Obviously, the thought-body is there, already spoken of by the author, to carry over mental impressions to the next life. It does not, therefore, necessarily follow for this reason, that the soul is timeless. It seems that, the author finds a spiritual substratum for psychological memory in what he calls the soul; and therefore, it is this substratum as the witness of all mental phenomenon that, he says, is timeless. (43)

1. The process of parturition sets in motion the *prāṇa* that pushes the embryo out.
2. Child as per the text.

(iv) देहस्य षड् भावाः

भावाः स्युः षड्विधास्तस्य मातृजाः पितृजास्तथा ।
 रसजा आत्मजाः सत्त्वसंभवाः सात्म्यजास्तथा ॥४४॥
 मृदवः शोणितं मेदो मज्जा प्लीहा यकृद् गुदम् ।
 हृन्नाभीत्येवमाद्यास्तु भावा मातृभवा मताः ॥४५॥
 श्मश्रुलोमकचाः स्नायुसिराधमनयो नखाः ।
 दशनाः शुक्लमित्याद्याः स्थिराः पितृसमुद्भवाः ॥४६॥
 शरीरोपचयो वर्णो वृद्धिः सुप्तिर्बलं स्थितिः ।
 अलोलुपत्वमुत्साह इत्यादीन् रसजान्विदुः ॥४७॥
 इच्छा द्वेषः सुखं दुःखं धर्माधर्मौ च भावना ।
 प्रयत्नो ज्ञानमायुश्चेन्द्रियाणीत्यात्मजा मताः ॥४८॥
 ज्ञानेन्द्रियाणि ध्वणं स्पर्शनं दर्शनं तथा ।
 रसनं घ्राणमित्याहुः पञ्च तेषां तु गोचराः ॥४९॥
 शब्दः स्पर्शस्तथा रूपं रसो गन्ध इति क्रमात् ।
 वाक्कराङ्घ्रिगुदोपस्थानाहुः कर्मेन्द्रियाणि तु ॥५०॥
 वचनादानगमनविसर्गरतयः क्रमात् ।
 क्रियास्तेषां, मनो बुद्धिरित्यन्तःकरणद्वयम् ॥५१॥
 सुखं दुःखं च विषयौ विज्ञेयौ मनसः क्रिया ।
 स्मृतिभ्रान्तिविकल्पाद्या धियो ऽध्यवसितिर्मता ॥५२॥
 ब्रह्मयोनीनीन्द्रियाणि भौतिकान्यपरे जगुः ।
 सत्त्वाख्यमन्तःकरणं गुणभेदात्त्रिधा मतम् ॥५३॥
 सत्त्वं रजस्तम इति गुणाः सत्त्वात्तु सात्त्विकात् ।
 आस्तिक्यशुद्धधर्मेकरुचिप्रभृतयो मताः ॥५४॥
 सत्त्वात्तु राजसाद्भवाः कामक्रोधमदादयः ।
 निद्राऽऽलस्यप्रमादातिवञ्चनाद्यास्तु तामसात् ॥५५॥
 निद्राऽऽलस्यप्रमादातिवञ्चनाद्यास्तु सात्म्यजाः ।

(iv) The six substances (*bhāva-s*) of the (foetal) body : 44-56b

There are six types of substances¹ (involved) in the body (of the baby), viz., maternal², paternal³, the serological⁴, the self-created⁵, the mental⁶ and the self-adapted.⁷ (44)

Delicate parts such as blood, fat, marrow, spleen, liver, anus, heart, umbilicus, etc. are considered to be of motherly origin; while the beard, hair on the body and the head, nerves, veins, arteries, nails, teeth and semen etc. of tougher stuff are of fatherly origin. (45-46)

Now, the author goes on to describe in some detail the various parts and the elements in the body of the embryo as they are contributed by six different principles that are apprehended as derived from the mother, the father, the food, the soul, the mind and the innate physiological conditions inherited by the foetus. This agrees in substance with Suśruta (cf., Śā. Sthā. 3.43 and Caraka Śā. Sthā. 3.12-20 who is more elaborate).

Now, the author goes to describe in detail, though by no means exhaustively, the different parts and the principles of the body and the mind of the embryo, as they are distinctly contributed by the six substances already spoken of. The entire description seems to have been based on Suśruta (Śā. Sthā. 3.43) with minor differences, Caraka (Śā. Sthā. 3.12, 13) deals with this subject in greater detail.

1. *Bhāva* of the text is quite difficult to render in English appropriately, as it is used here in a very technical sense which has not been noted even by the lexicographers. The word has quite different connotations e.g., a mode of being, existence, disposition of mind, etc. Here it seems to be signifying the various constituent parts of the organism, classified into six substances according to the source from which they are derived.
2. *Mātrja*, literally means, 'derived from the mother'.
3. *Pitrja*, literally means, 'derived from the father'.
4. *Rasaja*, literally means, derived from 'rasa', i. e., serum in this context.
5. *Ātmaja*, literally means, 'pertaining to the transmigratory self', i. e., the individual soul.
6. *Sattva* is used in the sense of mind.
7. *Satmyaja* implies acquired by adaptation and habit.

Physical development⁸, complexion, growth⁹, drowsiness¹⁰, strength, stability¹¹, non-greed and enthusiasm are known to be due to the serum. (47)

Desire and aversion, pleasure and pain, virtue and vice, motive¹² and intention, endeavour, intelligence¹³, life-span¹⁴ and the sense organs etc. are considered to be self-derived.¹⁵ (48-49)

Hearing, touching, seeing, tasting and smelling are said to be the five perceptive organs, the objects of their functions

The *rasaja* elements are obviously related to the quality of nourishment, while the *ātmaja* factors pertain in principle to the moral quality of the mind and the character of the individual. It may not be forgotten that *ātman* involved in the compound *ātmaja*, refers to the transmigratory soul which is a repository of good and bad actions, moral and immoral tendencies, knowledge and ignorance etc. (cf., Caraka Śā. Sthā. 3.16 and 18 agreeing to a large extent).

Now, the author goes on to complete the picture, as it were, by relating the various instruments and physical organs with their respec-

8. 'S' defines *upacaya* as fattiness.
9. 'S' defines *vrddhi* as augmentation of volume or extent.
10. The word *supti* of the text also means sleep and laziness.
11. *Sthiti* has a text variant in *dhyti*, i.e., fortitude; but there seems to be no substantial difference in the meaning.
12. The word *bhāvana* signifies a unified process of motive and intention. Intention is neatly an activity of the conscious mind, but motive may be deeply related to the subconscious and the unconscious. *Bhāvana* comprehends the total process.
13. *Jñānam* of the text is quite difficult to translate. The word signifies undistorted perception. Though 'knowledge' is one of the meanings of the word, as it is understood today in the sense of accumulated experience and memory of facts, *jñānam* can hardly be rendered as such. In the context in which it is used, it can signify, what we understand by 'consciousness', provided it is not confused with self-consciousness. If by *jñānam* we understand the capacity for undistorted perception, then the word 'intelligence' used in its widest connotation, seems to be the nearest equivalent. In the Vedantic parlance, *jñānam* signifies witness consciousness, i.e., the consciousness which is not a modification of mind. Thus intelligence, here, has been used in the sense of pure consciousness, i.e., undelimited consciousness.
14. *Āyus* literally means the period of life.
15. *Ātmaja* refers to the character of the individual soul as it has

being sound, touch, vision, taste and smell respectively. (49-50)

Speech, hands, feet, anus and the genitals are the organs of action and their functions respectively are—speaking, movement, excretion and copulation. (50c-51c)

Mind and intellect are the two internal instruments. Pain and pleasure are known to be the objects of mind, while memory, error and choice (out of alternatives) etc. are considered to be its functions, and the function of the intellect is determination. (51c-52)

tive functions. The scheme of the five sense organs and the five physical organs of action forms the common feature of most of the orthodox schools of Indian philosophy. There is a difference of opinion regarding the mind and the intellect. While some treat of both as *antaḥkāraṇa*, i.e., the inner instrument, some consider mind to be the sixth sense organ. Here the author follows the scheme of the *Vedānta* philosophy and treats mind and intellect as different modifications of, what may be called, the mind-stuff or consciousness, i.e., *citta*. The same consciousness, when it functions as the instrument of desire, is known as *manas*, i.e., mind; and when it functions as the instrument of determination, it is known as *buddhi*, i.e., intellect. This, in principle, defines the connotation of these two terms.

The word mind, in English is used in different senses, i.e., it has a wider connotation than perhaps the word *manas* which has been rendered here as mind. Mind may be used as synonymous with psyche and also in the sense of will or even desire. Mind may include the intellect, will and reason and it may denote consciousness, either whole or as conscious, subconscious or unconscious. *Manas* stands also for the undivided *antaḥkāraṇa* and in that case is synonymous with mind. But, here mind is that category of the psyche, that modification of consciousness which has pain and pleasure for its objects. Desire is rooted in pain and pleasure. The pursuit of pleasure and the avoidance of pain is the function of the mind.

The word intellect has a more restricted connotation than the Skt. word *buddhi*. *Buddhi* is essentially the determinative faculty of the mind. It determines the course of choice and in this sense acts as the subconscious. But since in determining the course of action it utilises the process and the fund of knowledge, it involves analysis and discursive thinking. So, the term *buddhi* has been rendered as intellect for the sake of convenience, or may be for want of a better word.

The organs of sense-perception have *Brahman* for their source,¹⁶ while others take them to be material (in nature). (53ab)

The inner instrument called 'individual nature'¹⁷, differentiated by the type of character, is considered to be threefold. (53 cd)

The author, according to 'S', has enumerated memory, illusion and choice as some of the functions of the intellect. Memory includes knowledge and illusion is ultimately an error of judgement or a perversion of perception. Choice as related to action has already been explained as the function of *buddhi*.

'S' quotes *Vācaspatyam* which says that the mind and the intellect (i. e., *manas* and *buddhi*) combined together make for the apparent feeling, 'I exist'. In other words, mind and intellect are responsible for 'self-consciousness'.

Here obviously the author is elucidating the principle of individual predisposition.

Antahkaraṇa comprising the mind (*manas*) and the intellect (*buddhi*), or in other terms, will and practical reason, operates at the conscious level in modern terms. Apart from this the individual has another instrument in terms of consciousness, that functions at a deeper level.

16. 'S' elucidates this point as under :—

"The Vedāntins consider *Brahman* to be the cause of (the power of) the 'indriya-s' (i. e., the sense organs and the organs of action including the inner instrument) for indeed they consider *Brahman* to be the cause of entire appearance of the world phenomenon. Alternatively, the *Sāṅkhya-s* would interpret the phrase *brahmayantni* in the sense that they are not material. Others, i. e., the *Vaiśeṣika-s* consider these organs to be material, since they are produced from the five elements such as earth, water, etc., which are physical."

However, the elucidation of 'S' with reference to *Vedānta* is based on very general grounds and thus loses significance. The *Sāṅkhya* philosophy considers entire *prakṛti* as inert; and, therefore, it is not understood how the *Sāṅkhya-s* can consider the organs to be immaterial. Actually the *Sāṅkhya* system considers *puruṣa* to be absolutely inactive. Consequently *ahankāra*, i. e., the cause of self-consciousness is considered to be the cause of senses. Again in the Vedāntic view the world is an appearance of *Brahman*, which in its *cit* aspect can be considered to be the cause of sense perception.

17. *Sattva*, literally means—nature, essence, natural character, inborn disposition, mind and consciousness. In this context, 'S' takes it to be consciousness, as the third aspect of *antahkaraṇa*, the inner instrument.

The *guṇa-s* are *sattva*, *rajas* and *tamas*, i. e., purity¹⁸, activity and inertia. From the mental disposition¹⁹ of

According to the *Sāṅkhya* system, the inner instrument is threefold comprising the mind, the intellect and consciousness as the cause of self-awareness. *Sattva* is defined by 'S' as *svabhāva*, i. e., individual nature or predisposition. Three types of individual dispositions are discerned here on the basis of the predominance of any one of the three *guṇa-s*. *Guṇa* is an ingredient or a constituent of *prakṛti* as spoken of in the *Sāṅkhya* system of Indian philosophy. *Prakṛti* is manifestation and *Puruṣa* is the intelligent principle involved. It will not be relevant to go into the philosophical exposition of the *Sāṅkhya* doctrine here, but it is perhaps necessary to point out that it visualises two states of being, viz., the one of dissolution in which the three *guṇa-s* of *prakṛti* are in equilibrium and the intelligent principle *Puruṣa* is dissociated from it; and the other of creation, when the equilibrium of the *guṇa-s* is disturbed and by their varied predominance in association with the intelligent principle *Puruṣa*, they create the phenomenon of names and forms. So, the individual nature of the individual is instrumental in the individual creation to the intelligence involved in the individual being. Thus the mind, conscious and unconscious, is conceived here as the inner instrument for the functioning of the consciousness of the individual. Therefore, the individual consciousness as associated with the predominance of any one of the three *guṇa-s* is discerned to be of three types. The three *guṇa-s* seem to represent, what in our terms, we would understand as the two opposites and the centre of their axis, the centre being the *sattva*.

It is interesting to compare *Suśruta* (Śā. Sthā. 1.19) on this subject. "An absence of all-killing and hostile propensities, a judicious regimen of diet, forbearance, truthfulness, piety, a belief in God, spiritual knowledge, intellect, a good retentive memory, comprehension and the doing of good deeds irrespective of consequences are the qualities which grace the mind of a person of a *sāttvika* temperament. Feeling of much pain and misery, a roving spirit, non-comprehension, vanity, untruthfulness, non-clemency, pride, an overwinning confidence in one's own excellence,

18. *Rajas* and *tamas* have been rendered here as activity and inertia which are not only opposite in nature but are also relative while *sattva* is rendered as purity being free of the extremities. There are other sets of words in which too the three *guṇa-s* are rendered into English but the essential point is that they imply the two opposites and the transcendental principle of *sattva*.

19. The three types of inner disposition or consciousness have one of the three *guṇa-s* as its predominant factor conditioning the entire consciousness.

purity²⁰ arise faith²¹, single-minded devotion to virtue etc.²² from the disposition of activity arise affections such as craving, anger, arrogance, etc.; and from the disposition of inertia spring sleep²³, laziness²⁴, inattention²⁵, anguish and deception etc. (54-55)

Clear sensibility, freedom from ill health and laziness²⁷ are contributed by self-adaptation. (56ab)

lust, anger and hilarity are the attributes which mark a mind of a *rājasika* cast. Despondency, stupidity, disbelief in the existence of God, impiety, stupefaction and perversity of intellect, lethargy, inaction and sleepiness are the qualities which mark a mind of a *tāmasika* stamp." (reproduced from Eng. tr. by K.K. Vol. II, p. 1).

'S' defines *Satmya* as *cira-paricaya-saṁskāra-viśeṣaḥ*, i. e., the residual effect of long-standing association (verse 44 ante). From the account of Caraka (Śā. Sthā. 3.7) it appears that the word *Satmya* is associated with right type of dietary habits of the parents. Thus, in all probability what is meant by *satmya* in this context is, the habits and disposition acquired by adaptation.

20. On the above basis the function of the predisposition of purity, predominated by *sattvaguna* is fundamentally and categorically different from that of the other two dispositions, predominated by *rajas* and *tamas*.
21. *Āstikya* is defined by 'S' as belief in the existence of the other world, *para-loka*, while generally it is defined as belief in the testimony of Vedas being the means of valid knowledge. Thus this concept does not, in the Hindu tradition, imply belief in personal God.
22. *Dharma* involves so many varied and yet related concepts that it is almost impossible to render it into English without compromising the meaning in some respect. Here, *dharma* may be understood with reference to *adharmā*. *Dharma*, as such is living in harmony with the nature of existence. 'S' perceives a hint at the attainment of spiritual liberation through the cultivation of purity by the use of the word 'etc.'
23. 'S' defines *nidrā*, i. e. sleep as the withdrawal of the mind from the contact of the senses with the sense objects. It therefore includes the dreamful and the dreamless states of consciousness.
24. 'S' defines *alasya*, i.e., laziness as indifference or inactivity with reference to desired objects and the means of their attainment.
25. 'S' defines *pramāda* as lack of concentration or slackness in attention in a particular direction.
26. *Arogya* is freedom from disease.
27. Absence of laziness is indicated.

(v) देहस्य भूतात्मकता

देहो भूतात्मकस्तस्मादादत्ते तद्गुणानिमान् ॥५६॥
 शब्दं श्रोत्रं सुषिरतां वैविकत्यं सूक्ष्मबोद्धताम् ।
 बिलं च गगनाद्वायोः स्पर्शं च स्पर्शनेन्द्रियम् ॥५७॥
 उत्क्षेपणमवक्षेपाकुञ्चने गमनं तथा ।
 प्रसारणमितोमानि पञ्च कर्माणि, रूक्षताम् ॥५८॥
 प्राणापानौ तथा व्यानसमानोदानसंज्ञकान् ।
 नागं कूर्मं च कृकरं देवदत्तं धनञ्जयम् ॥५९॥
 दशेति वायुविकृतोस्तथा गृह्णाति लाघवम् ।
 तेषां मुख्यतमः प्राणो नाभिकन्दादधः स्थितः ॥६०॥
 चरत्यास्ये नासिकयोर्नाभौ हृदयपङ्कजे ।
 शब्दोच्चारणनिःश्वासोच्छ्वासकासादिकारणम् ॥६१॥
 अपानस्तु गुदे मेढ्रे कटीजङ्घोदरेषु च ।
 नाभिकन्दे वङ्क्षणयोरुजानुनि तिष्ठति ॥६२॥
 अस्य मूत्रपुरीषादिविसर्गः कर्म कीर्तितः ।
 व्यानो ऽक्षिश्रोत्रगुल्फेषु कट्यां घ्राणे च तिष्ठति ॥६३॥
 प्राणापानधृतित्यागग्रहणाद्यस्य कर्म च ।
 समानो व्याप्य निखिलं शरीरं बह्विना सह ॥६४॥
 द्विसप्ततिसहस्रेषु नाडीरन्ध्रेषु संचरन् ।
 भुक्तपोतरसान्सम्यगानयन्देहपुष्टिकृत् ॥६५॥
 उदानः पादयोरास्ते हस्तयोरङ्गसन्धिषु ।
 कर्मास्य देहोन्नयनोत्क्रमणादि प्रकीर्तितम् ॥६६॥
 त्वगादिधातूनाश्रित्य पञ्च नागादयः स्थिताः ।
 उद्गारादि निमेषादि क्षुतप्रभृति च क्रमात् ॥६७॥
 तन्द्राप्रभृति शोफादि तेषां कर्म प्रकीर्तितम् ।

अग्नेस्तु लोचनं रूपं पित्तं पाकं प्रकाशताम् ॥६८॥

अमर्षं तैक्ष्ण्यमूष्माणसोजस्तंजश्च शूरताम् ।

मेधावितां तथा ऽऽवत्ते जलात्तु रसनं रसम् ॥६९॥

शंत्यं स्नेहं द्रवं स्वेदं मूत्रादि मृदुतामपि ।

भ्रूमेघ्राणेन्द्रियं गन्धं स्थैर्यं धैर्यं च गौरवम् ॥७०॥

श्मश्रुकेशनखं दन्तानस्थ्याद्यन्यच्च कर्कशम् ।

(v) The five great elements (*mahābhūta-s*) and the human body : 56c-71b

The body is a composite of the (five) great elements¹ (*mahābhūta-s*) and has therefore acquired their qualities (as herein described); sound, the faculty of hearing, porosity, individuation², intelligence³ and hollowness from space; and touch, the sense organ for touch, five types of motion, viz.

The physical body is a conglomeration of the five great elements and as such it has inherited, as it were the qualities of those elements. The sense organs are naturally related to their respective objects of perception. The objects of perception are the five elements in different forms and combinations. Thus either we can speak of the five sense objects or the five elements. This is the reason why sound, for example, is separately mentioned from the faculty of hearing and touch is mentioned as distinct from the sense of touch (cf, Caraka Śā. Sthā. 1.30).

The objects such as sound etc. are known to be the sense objects, i. e. the qualities or objects of senses; and they in the body are indicative of the great elements such as ether etc. In this context it might be useful to refer to the concept of *Puruṣa*, i. e., the individual being as found in Caraka (Śā. Sthā. 1.15), viz. (the five elements). Ether etc. with consciousness as the sixth make for the individual being. Consciousness is thus the spiritual element and the five material elements compose the body. Again Śā. Sthā. 5.4-5 states—

“The macrocosm is said to be constituted of six elements, viz., earth, water, fire, air, ether and the unmanifest ‘*Brahman* (transcenden-

1. The five great elements are earth, water, fire, air and ether.
2. *Vaibiktyam* is separativeness.
3. What is literally meant is the capacity of subtle discernment, the ability to grasp the abstract.

upwards, downwards, contraction, linear movement and expansion from air. (56c-58d)

The ten modifications of air (breath in the body), viz. *apāna*, *vyāna*, *samāna*, *ulāna*, *nāga*, *kūrma*, *kṛkara*, *devadatta* and *dhananājaya* and roughness⁴ as well as lightness⁵ are also derived from the air. (58d-60b)

Of these (ten), *prāṇa*, which is the most important one, is stationed below the root of the navel, and it operates through the mouth, the nostrils, the navel and the heart,

tal reality); and these very six elements it is said, constitute the microcosm called *Puruṣa*. Of that *Puruṣa*, the earth forms the image, water forms the liquid, fire constitutes the heat, air acts as the vital breath, hollowness is caused by ether and *Brahman* is the inner soul etc.” Compare this with Suśruta (Śā. Sthā. 1.20): “The properties of *ākāśa* (ether) are sound, the sense of hearing, porosity and differentiation, evolution of the veins, ligaments, etc. into their characterised species (*viviktatā*). The properties of *vāyu* (etherin) are touch, the skin, all functional activities of the organism, throbbing of the whole body (*spandana*) and lightness. The properties of *teja* (fire or heat) are form, the eyes, the colours, heat, illumination, digestion, anger, generation of instantaneous energy and valour. The properties of *apa* (water or liquid) are taste, the tongue, fluidity, heaviness, coldness, oleaginousness and semen. The properties or modifications of *pṛthvi* (the earth matter or solid) are smell, the nose, embodiment and heaviness” (reproduced from Eng. tr. by K. K. Vol. II, p. 120).

Our author has dealt with this subject rather elaborately (i.e., from verse No. 56cd-71ab) giving minute details of the various *prāṇā-s* (vital breaths) from the science of *Yoga* (vide Verse Nos. 59-68ab). One is tempted to reach for the original source and reflect on the subject in proper detail; but obviously, that would be too great a divergence from the main subject of this work. It will be seen that as far as the particular qualities of the great elements manifested in the human body are concerned, the author's description is not at great variance with this account, though in some respects both are more elaborate with reference to each other.

4. *Rūkṣatā*, as defined by ‘S’ is caused by the scarcity of oily matter. Roughness is not here the opposite of smoothness.
5. Weightlessness is defined by ‘S’ as absence of weightfulness.

and (thereby) causes the verbalisation of speech, the inhalation and exhalation of the breath and also sneezing and coughing. (60c-61)

*Apāna*⁶ is stationed in the anal region and the genitals,⁷ waist, legs, abdomen, the root of the navel, the groin, thighs and the knees. Its function is to discharge urine and excretion etc.⁸ (from the body). (62-62b).

Vyāna dwells in the eyes, ears, ankles, waist and the nose, and its function is to draw in, hold and to push out breath. (63c-64b)

Samāna pervades the whole body; and running through the seventytwo thousand nerve-channels⁹ of the body accompanied by the (digestive) fire, helps to nourish it by carrying essence of lymph-chyle (*rasa*) of the food and drink (to the tissues) and distributing it proportionately. (64c-65)

Udāna abides in the hands, the feet and the joints of the limbs: its function being the lifting of the body upwards and breathing the last, i.e., dying, etc.¹⁰ (66)

Residing in elements such as skin, etc.¹¹ are the five (other modifications of the vital breath) such as *nāga* etc.¹²,

Prāṇa, *apāna*, etc. are the ten modifications of the vital breath, as it functions through the parts of the body. These functions as appropriate to each of the ten modifications are related in the following text.

6. *Apāna* generally denotes the outgoing breath i.e. expiration; it also signifies one of the five life-winds (*prāṇāḍ-s*) in the body which goes downwards and finally goes out through the anus.
7. Literally, anus and penis as per the text.
8. Etc. according to 'S' indicates that the discharge of semen is implied.
9. *Nāḍī* is any tubular vessel including arteries, veins, etc. Here the word has been used in its generic sense of a tubular channel.
10. 'Etc.' is indicative of hiccup etc. The use of the word 'etc.' is not strictly in keeping with the English idiom but because of its Sanskrit counterpart.
11. The other four being blood, flesh, fat and bones.
12. The other four being *kūrma*, *kṛkara*, *devadatta* and *dhanāñjaya*.

performing the function of eructation etc.¹³, winking etc.,¹⁴ sneezing etc.¹⁵, lassitude etc.¹⁶ and swelling respectively. (67-68b)

From fire (the body acquires) sight¹⁷, form¹⁸, bile, digestion¹⁹, lustre, wrath, sharpness, heat²⁰, vigour, splendour, valour²¹ and intellectuality.²² (68c-69c)

Likewise, from water (it derives) the sense of taste, relish, coolness, viscosity²³, fluidity, perspiration, urine etc. as well as softness: and from the earth (it acquires) the sense of smell, odour, stability, fortitude and heaviness (weight), beard, hair (on the head etc.), nails, bone and such other hard (materials). (69d-71b)

According to the Ayurvedic theory, sense perception takes place because of the fact that the senses as well as the sense-objects are basically made out of the same material, and so there is a correlation in between them. The senses and their respective sense objects are related through their respective *tanmātrā-s*. This is the reason why the object of one sense cannot be perceived through the other senses (cf. Suśruta Śā. Sthā. 1-15).

13. Such as spitting etc. is included.
14. Any other functions of the eyelids.
15. Blowing the nose etc. is indicated.
16. Yawning etc. is included.
17. The sense of seeing is meant.
18. The object of the sense of seeing is implied.
19. The *śūka* of the text indicates the result of the entire process of digestion, right from the undigested food to the formation of the lymph-chyle to be assimilated into the blood system.
20. *Uṣmān* of the text is indicative of that particular heat in the body which causes perspiration.
21. Valour implies fearlessness.
22. 'S' interprets it as the power inherent in the non-forgetfulness of the known.
23. The oiliness in the body. 'S' interprets it as 'sweetness of speech'.

(vi) त्रिविधदेहानां भेदकथनम्

वातादिधातुप्रकृतिर्व्योमादिप्रकृतिस्तथा ॥७१॥

सप्तधा सात्त्विको यश्च ब्रह्मेन्द्रियमविग्रहः ।

वारुणश्चाथ कौबेर आर्षो गान्धर्वविग्रहः ॥७२॥

राजसः षड्विधो यश्च पेशाचो राक्षसस्तथा ।

आसुरः शाकुनः सर्पः प्रेतदेहस्तथा परः ॥७३॥

तामसस्त्रिविधो यश्च पशुमत्स्याङ्घ्रिपाकृतिः ।

तेषां लक्ष्माणि न ब्रूमो ग्रन्थविस्तरकातराः ॥७४॥

(vi) The constitution of bodies : Threefold classification :
71c-74

The constitution is according to *dhātu-s* such as *vāta* (wind) etc.,¹ and elements such as space etc.² The *sāttvika* (constitution) is of seven types such as the bodies of Brahmā³ Indra⁴, Yama⁵, Varuṇa⁶, Kubera⁷, ṛṣi⁸ and *gandharva*⁹; the

The constitution of the physical body of creatures is considered from three different points of view, viz, the medical, the physical and the metaphysical respectively known in Āyurveda as *doṣa-prakṛti*, *bhautiki-prakṛti* and *mahā-prakṛti*. The first comprises of the three āyurvedic principles of *vata*, *pitta* and *kapha*, i. e., grossly manifest as wind, bile and phlegm; the second is purely physical, comprised of the five basic elements space, air, fire, water and earth, and the third is conceived to be threefold according to the predominance of three *guṇas*.

1. Wind etc. signifies the three humours of the body recognised as the three basic-elements of the body in the āyurvedic system of medicine. The other two are bile and phlegm.
2. Space or ether along with the other four elements air, fire, water and earth
3. The creative aspect of the Hindu trinity.
4. The chief of the gods of the Hindu pantheon, specially the *deva-s*.
5. God of death.
6. God of waters and morality.
7. God of wealth.
8. Sage.
9. Semi-divine beings associated with music.

(vii) देहस्य षडङ्गानि

पिण्डस्याहुः षडङ्गानि शिरः पादौ करौ तथा ।
मध्यं चेति

rājasika (constitution) is of seven types such as the bodies of *piśāca*¹⁰, *rākṣasa*¹¹, *asura*¹², *śakuni*¹³, *sarpa*¹⁴ and *preta*¹⁵; and *tāmasika* (constitution) of three types such as the bodies of animals, fishes and trees.¹⁶ Apprehending undue elaboration of the work, these are not being defined by us. (71c-74)

(vii) Six organs of human body : 75abc

The human organism¹ is said to be possessed of six organs

The author has referred to the first two, i. e., *doṣa-prakṛti* and *bhautiki-prakṛti* clearly (vide Verse 71cd), but has not mentioned the general category of *mahā-prakṛti* and has straightaway described its three divisions. This illustrates the subtlety and the extreme brevity of the aphoristic style of the author's expression, which sometimes makes understanding a laborious process

The seven types of the *sāttvika* and *rājasika* and three types of *tāmasika* constitutions respectively are described metaphorically through the symbolic names of Brahmā, Indra, Yama, etc. All these are in fact the types of human bodies but they have been so named as to indicate their chief characteristics, which are well-known in Āyurveda. Obviously we need not go into these details. As the author is not anxious to deal with the subject in greater detail, it will be too great a digression to define and elucidate the various individual types of bodies referred to in the text.

10. A malevolent being, a goblin.
 11. A demon, an evil spirited being.
 12. *Asura* is a general name for the enemies of gods.
 13. A bird.
 14. A snake.
 15. Soul of a dead body; the word *preta* literally means that which has been sent, i.e. sent to the other world, *preta-loka* is the plane of consciousness on which the soul experiences the fruits of actions done in the world during a life-time before being born anew. In order to do so the soul is provided with a subtle body.
 16. K. R. translates *aṅghriṣa* as 'elephant'.
1. *Piṇḍa* of the text refers to the body, excluding the soul, i. e., the intelligent principle.

(viii) देहस्य प्रत्यङ्गानि

1. ग्रन्थकृत्प्रतिज्ञा

अथ वक्ष्यन्ते प्रत्यङ्गान्यखिलान्यपि ॥७५॥

2. त्वचः कलाश्च (प्रत्येकं सप्तधा)

त्वचः सप्त कलाः सप्त स्नायुश्लेष्मजरायुभिः ।

छन्नाः कोशाग्निभिः पक्वास्ता धातून्तरा ऽन्तरा ॥७६॥

(or limbs)—two feet, two hands², the head⁴ and the trunk.
(75a-c)

(viii) Sub-organs of human body : 75c-119

1. Author's proposal to deal with the sub-organs : 75cd

Now, the sub-organs will be dealt with in their entirety.
(75cd)

2. Skins and membranes : 76-78

There are seven skins and seven membranes, enclosed by fibrous tissues, mucous and membranous coverings, that ripen through the internal heat¹ of the tissues and act for the boundary lines to sustain in-between them the supportive

The suborgans are described by the author at length, i. e., upto verse No. 119. For the enumeration of the suborgans Suśruta 5. 3-5 may be consulted.

The sevenfolds of skin from the innermost tender one to the outermost rough skin, are mentioned by Suśruta (cf. 4. 3-5), though in the

2. Legs are implied in feet.

3. Arms are implied in hands.

4. Cf, Caraka, Śā. Sthā. 7.5, who includes neck also along with the head, giving a composite expression of *śirogrīvam*. In the text the head is mentioned first.

1. The expression internal heat of the tissues stands for *kośāgni* of the text.

सोमभूताश्च धातूनां काष्ठसारोपमा मताः ।

आद्या मांसधरा मांसे सिरा घमनयस्तथा ॥७७॥

स्नायुस्रोतांसि रोहन्ति पङ्के पङ्कजकन्दवत् ।

असृङ्मेदः श्लेष्मशकृत्पित्तशुक्लधराः पराः ॥७८॥

tissues², conceived on the analogy of pith. The first is *māmsa-dharā* (i. e., the flesh-holding one).³ (76-77c)

The veins, arteries, muscles (or sinews) and the channels⁴ arise from the flesh as the bulbous root of the lotus (springs) from mire; while the other folds support the blood, fat, mucous, excrement, bile and semen. (77c-78)

reverse order. Our author begins with the innermost fold while he begins with the outermost one. The seven layers are as under :

1. *Avabhāsini*...Horney layer
2. *Lohita*...Stratum lucidum
3. *Śveta*...Stratum granulosum
4. *Tāmrā*...Malpighian layer
5. *Vedini*...Papillary layer
6. *Kohini*...Reticular layer
7. *Māmsadharā*...Subcutaneous tissue and Muscles

However, Caraka speaks of only six layers, viz, *udakadharā* (that which holds water) and *astgdharā* (that which holds blood), etc. in the order of outer to the inner. Modern medicine distinguishes only two skins, outer and inner called epidermis and dermis, the former is perceived in five layers and the latter in two layers.

For greater detail regarding the various skins and skin-diseases associated with them, Suśruta 4.3 may be referred to. The seven *kalā-s* are identified by Suśruta as under (cf., Śā. Sthā. 4. 4-19);

1. *Māmsadharā kalā* ... Fascia
2. *Raktadhara* ,, ... Vascular tissue of the blood vessels, etc.
3. *Medodharā* ,, ... Adipose tissue

2. Supportive tissues are *dhātu-s* of the text that are detailed in the next verse.

3. The other skins are not mentioned by our author by name, these may be seen in the comments.

4. *Srota-s* are the channels or canals that open outwards in the body.

3. घातवः

त्वगसृङ्मांसमेदो ऽस्थिमज्जशुक्राणि* घातवः ।
 सप्त स्युस्तत्र चोक्ता त्वग्रक्तं जाठरवह्निना ॥७९॥
 पक्वाद्भ्रूवेदन्नरसादेवं रक्ताविभिः परे ।
 स्वस्वकोशाग्निना पक्वैर्जन्यन्ते घातवः क्रमात् ॥८०॥

3. Supportive tissues : 79-80

Serum¹, blood, flesh, fat, bone, marrow and semen are the seven supportive tissues. Of these the serum and the blood are produced from chyme² created by the aid of

4. *Śleṣmadhara* „ ... Synovial tissues
5. *Purīṣadhara* „ ... Separates the faecal refuse in the lower gut
6. *Pittadhara* „ ... Holds the chyme derived from food
7. *Śukradhara* „ ... Bears semen and extends throughout the body

The folds of skin and the membranes (*kala-s*) spoken of above in constitution are conceived on the analogy of pith, i. e., as the pith in the wood is grown layer after layer varying in strength so are they grown about each other. Another simile is also given, viz., as the layers of cream are formed over milk heated on slow fire, so also the various folds of skin along with membranes are formed out of seven supportive tissues (*dhātu-s*) of the body which are detailed in the next verse.

The seven supportive tissues are spoken of as being sustained in-between the various folds and layers of the seven skins and the seven membranes (*kala-s*). The first layer called *māṃsadhara*, holds within itself, flesh as it has already been told above. Now the author is pointing out that veins, arteries, muscles and the channels (*srota-s*) are all rooted in flesh as the lotus-stalk is rooted in the mire.

Srota-s are the canals in the body, nine in number such as the ears, eyes, mouth, nostrils, anus and the urethra opening outwards. Females have two more, viz., the two breasts and the canal or the channel that carries the menstrual blood.

Thus the *māṃsadhara*, i.e., the flesh-holding skin is the most important of all and having described its function, the author merely hints at

1. *Tvak* is used in the technical sense of *rasa* (serum).
2. Chyme is the nutrient-solution made out of digested food and

4. आशयाः (सप्त)

रक्तश्लेष्मामपित्तानां पक्वस्य मरुतस्तथा ।
 मूत्रस्य चाश्रयाः सप्त क्रमादाशयसंज्ञकाः ॥८१॥
 गर्भाशयो ऽष्टमः स्त्रीणां पित्तपक्वाशयान्तरे ।

gastric fire; while the other (elements) are produced from blood, ripening by the internal heat of their respective tissues³. (79-80)

4. The receptacles (*āśaya-s*) : 81-82b

There are seven containers¹ called receptacles² for blood, phlegm, undigested food, bile, digested food, bodily wind and urine known by their respective names³. Women

the function of the other six folds that respectively hold or support the rest of the six elements. In fact our author has synthesised the description of the skins and the membranes for the sake of brevity as it will be clear from our exposition of the subject matter, vide comments on verse Nos. 76-77 abc.

Then the author goes on to explain how the seven supportive tissues are produced. He says, the skin and blood are produced directly from the essence of food and drink digested through the gastric fire, while the rest of them are produced from blood as they are ripened in the heat of their respective tissues.

The seven receptacles (*āśaya-s*) are identified as under :

- | | | |
|----------------------|----------------------|-------------------------------|
| 1. <i>Raktāśaya</i> | for blood | ... Spleen and liver |
| 2. <i>Śleṣmāśaya</i> | „ phlegm | ... Breast |
| 3. <i>Amāśaya</i> | „ undigested food... | Stomach |
| 4. <i>Pittāśaya</i> | „ bile | ... Gall bladder and pancreas |
| 5. <i>Pakvāśaya</i> | „ digested food | ... Intestines |
| 6. <i>Vatāśaya</i> | „ wind | ... Lungs and colon |
| 7. <i>Mūtrāśaya</i> | „ urine | ... Urinary bladder |
| 8. <i>Garbhāśaya</i> | „ embryo | ... Uterus |

3. Internal heat of the tissues is the expression for *kośāgni*. *Kośa* is that which has a capacity to retain something other than itself

1. Cavities or viscera.
2. *Āśaya-s*.
3. Respective names of blood etc. to be attached to the word *āśaya*, e.g., *raktāśaya*, *vatāśaya*, etc.

5. हृदयस्य चेतनस्थानत्वम्

प्रसन्नाभ्यां कफासृग्भ्यां हृदयं पङ्कजाकृति ॥८२॥

सुषिरं स्यादधोवक्त्रं यकृत्प्लीहान्तरस्थितम् ।

एतच्च चेतनस्थानं,

have the eighth, the womb in-between the receptacles for bile and the digested food.* (81-82b)

5. Heart as the seat of intelligence : 82c-83c

The heart is hollow and in the shape of an inverted lotus situated in-between the liver and the spleen and is developed from clear¹ blood and phlegm. This too is the abode of consciousness. (82c-83b)

These receptacles function as the containers or the vessels. Seven of these are common to males and females while women have one more, viz., uterus placed in-between the gall bladder and the intestines.

That heart as an abode or the seat of consciousness in the body is well recognised by some schools of thought of Indian philosophy. Even the *upanisads* proclaim that the *Puruṣa*, i. e., the soul or the spirit resides in the heart. But this can be a metaphorical expression.

The expression *cetana-sthānam* is difficult of being rendered into English with its philosophical implications. As it is, it means the abode of sentience. 'K' has laboured hard to forbid the reader from interpreting it as the abode of *Jīvātman*, i. e., the transmigratory soul, and he therefore interprets the conjunctive *ca* (and) as indicative of other places such as space etc. which also is considered to be the abode of *Brahman*, the absolute Being. Perhaps he, being a *vedāntin*, identifies *cetana* with *Brahman*, and therefore feels that heart should not be considered as the only abode of sentience. Therefore, he maintains that heart is the abode of the manifestation of *Brahman*, the absolute Being. One can, however, cut across the philosophical implications by taking into account the next verse along with this one. If so read, it is obvious that the word *cetana* of the text is not used here in the sense of *caitanya*, i. e., pure intelligence, but has been used in the sense of consciousness. But this too must be taken metaphorically for consciousness being intangible can hardly be located anywhere in the body with justification. But nevertheless, consciousness works through the brain, which is controlled by the heart.

4. Cf., *Suśruta Śā. Sthā.* 5. 7-8.

1. *Prasanna* means clear in the sense of clean and pure.

6. जीवस्य अवस्थात्रयम्

, तर्वास्मिस्तमसा ऽऽवृते ॥८३॥

निमीलति स्वपित्यात्मा जागति विकसत्यपि ।

द्वेषा स्वप्नसुषुप्तिभ्यां स्वापो बाह्येन्द्रियाणि चेत् ॥८४॥

लीयन्ते हृदि जागति चित्तं स्वप्नस्तदोच्यते ।

मनश्चेल्लीयते प्राणे सुषुप्तिः स्यात्तदा ऽऽत्मनः ॥८५॥

स्वमपीतः परात्मानं स्वपित्यात्मेत्यतो मतः ।

6. The three states of consciousness: 83d-86b

That (intelligent principle) being enveloped by darkness¹, it (the heart-lotus) closes (upon itself) and the *ātman*² (the spirit) sleeps; it (*ātman*) awakens, while that (the heart) opens up. (83d-84b)

It seems that the whole expression is metaphorical. Heart is the centre of the physical body, and as such it is used as the symbol for the centre of consciousness, which is the ego or the soul. Man, here, is conceived to be the complex entity : spirit-soul-body. Spirit being the divine element in man, the *Ātman* which is not different from *Brahman*, the absolute; the soul is the *jīvātman*, the embodied self, subject to transmigration. The heart-lotus is the symbol of self-consciousness. Therefore, when the spirit is clouded by inertia (*tamas*) the heart-lotus closes its petals upon itself and the spirit, i. e., the intelligent principle ceases to operate, and is thus said to be asleep. Conversely, when inertia is dissipated, the spirit awakens into self-consciousness and the heart-lotus is opened up.

'K' interprets this in terms of *Vedānta* (absolutistic). He explains the phenomenon of sleep as explained in the text as follows: "The intelligent principle being enshrouded by the darkness of beginningless ignorance, when the heart-lotus closes, then the *ātman*, the soul (i. e., the self-conscious being, the *jīva*) sleeps; and when that lotus opens up, the *jīva*, the self-conscious being, awakens and feels 'I am'." It is notable that in this verse 'K' interprets *ātman* as *jīva*.

After giving the above interpretation, he then gives the substance in the following manner : "In the state of self-conscious existence due to

1. Inertia.

2. 'K' interprets it as *jīva*, here.

Sleep is twofold, dreamful and dreamless : when the external senses are withdrawn into the heart and the mind remains awake, it is said to be dreamful; but, if the mind is withdrawn unto *prāṇa*³ (the vital breath) then it (the sleep)

the beginningless ignorance with regard to the real nature of one's being, the individual obtains in the conditions of the waking state, the dreamful state and the dreamless sleep state under the respective names of *viśva*, *taijasa* and *prajña*.

This elucidation, enlightening as it is, is technical as well. The purport is that Life-essence or the absolute Being, in the state of individuated being lives under the influence of beginningless ignorance in the three conditions of consciousness technically called *viśva*, *taijasa* and *prajña*, that correspond to the waking, the dreamful and the dreamless sleeping states. Ignorance is nothing but the self-imposed limitation of personality complex, and the three states roughly correspond to the conscious, the subconscious and the unconscious mind of modern psychology.

What is the distinction between the dreamful and the dreamless sleep? Because, apart from the waking state of the consciousness, these are the two other states. The author explains that in the dreamful sleep, energy or attention is withdrawn only from the external sense, but the mind keeps awake, a part of the brain is actively functioning, i.e., the thought process keeps on going resulting in dreams. Thus, in the absence of the sense perception, the thoughts are the only objects of consciousness, and the distinction between the ideal and the actual form of objects is lost to it. That is why dreams are as real in the dreamful state as the physical world is during the waking state, and therefore one cannot be said to be more real than the other with reference to its consciousness.

The dreamless sleep is caused by the mind being dissolved, i.e., withdrawn, unto *prāṇa* (vital breath). One can quite understand that in the deep sleep the mind is withdrawn, but that it is withdrawn unto *prāṇa* is a paradox. The *Vedānta* speaks of five vestures, viz., the physical (*annamayakośa*), vital (*prāṇamayakośa*), mental (*manomayakośa*), psychic (*vijñānamayakośa*) and blissful (*ānandamayakośa*). In this scheme the mind which pertains to the mental vesture is subtler than *prāṇa* (vital breath). Therefore, it is not intelligible how a subtler entity can be dissolved in a grosser one, for usually the case is contrary.

3. It is temporarily dissolved in *prāṇa* which is not the physical breath only.

7. नव स्रोतांसि

श्रवणे नयने नासे वदनं गुदशेफसी ॥८६॥

becomes dreamless or the deep sleep state of the individuated being⁴. (84c-85)

That the *ātman*⁵ sleeps, is so believed for it dissolves itself⁶ unto *Parātman*⁷. (86ab)

7. The nine canals (*srota-s*) : 86c-87

The embodied human beings are provided with nine canals (*srota-s*) for the elimination of bodily impurities, viz.,

The statement of the author can possibly be understood in the sense that even while the mind is not functioning in deep sleep, the vital breath does function, and therefore the mind can be said to dissolve in it. Or, alternatively, the dissolution of the mind may be understood in the restricted sense of self-consciousness only, which is related to sense perception and body consciousness, which may not be very satisfactory.

The phenomenon of sleep is elucidated in a few words here on the basis of semantics. The Sanskrit expression for, 'the principle of intelligence sleeps', is '*svapiti*'. The author raises the question as to why the *ātman* is said to be sleeping, and he answers—'*svamaṅgalaḥ parātmanam*', i. e., because it dissolves itself, discards its self imposed limitations and thereby merges into the supreme Being; and this he does by explaining the meaning of the word '*svapiti*', semantically.

Apart from the semantics, the idea expressed is very simple. *Ātman* freed from the limitations of *Jīvatva* becomes one with the *Paramātman*; in other words, the spirit freed from the limitations of self-consciousness is united with the supreme Deity; and this process exhibits itself, in the phenomenon of sleep. This however, signifies a temporary release.

4. Self-conscious living organism, i.e., *jīva*.
5. The principle of intelligence involved in a self-conscious being.
6. Actually what is dissolved is the limitation caused by self-consciousness.
7. The supreme Deity, the absolute Being.

बहिर्भलवहानि स्युर्नव ओतांसि वेहिनाम् ।
स्त्रीणां त्रीण्यधिकानि स्युः स्तनयोर्द्वे भगे ऽसृजः ॥८७॥

8. जालानि, कूर्चाः, मांसरज्जवः, सीवन्यश्च

अस्थिस्नायुसिरामांसस्थानि जालानि षोडश ।
षट् कूर्चाः करयोरङ्घ्र्योः कन्धरायां च मेहने ॥८८॥
पार्श्वयोः पृष्ठवंशस्य चतस्रो मांसरज्जवः ।
सीवन्यः पञ्च शिरसि द्वे जिह्वालङ्घयोर्मते ॥८९॥

ears, eyes, nostrils, mouth, anus and urethra; but the females have three more; two breasts (milk channels) and the one that carries off the menstrual discharge.

8. Plexuses, clusters, fleshy bands and sutures : 88-89

There are in all sixteen plexuses¹ situated around bones, ligaments, veins² and flesh; six clusters³—two in the hands, two in feet and one each in the neck and penis; four fleshy bands⁴ on the two sides of the backbone; five sutures⁵ in the head, one in the tongue and one in the genitals. (88-89)

Suśruta speaks of four kinds of plexuses, i. e. *jāla-s*, viz. muscular, vascular, ligamentous and bony. One each of the four kinds is found about each of the wrists and the ankles. All the four kinds of plexuses intermingle and cross one another to form a network. The word *jāla* literally means a network and the whole body is a network of plexuses as it were (cf., Śā. Sthā. 5.11).

1. *Jāla-s* : cf. Suśruta Śā. Sthā. 5.11.
2. *Sira* of the text here means any tubular vessel such as vein, artery, nerve, etc.
3. *Kūrca* (lit. a brush), the clusters or groups may be made up of muscles, bones, vessels and ligamentous structure (cf. K. K. Bhisagratna, p. 162).
4. *Māmsarajju* are muscular cords originating from either side of the spinal column. These are identified by Ghanekar (cf. Vol. 2, p 145) with Longissimus, Spinalis and Ilio-costalis.
5. Bhisagratna defines *svantī* as the central tendinous band which looks like a structure from which the muscles on the either side arise. Ghanekar names the sutures as, metopic suture, coronal suture, lambdoid suture, sagittal suture, squamosal suture and

9. अस्थीनि, तेषां सङ्ख्या भेदाश्च

चतुर्दशाष्टादश वा संमता अस्थिराशयः ।
अस्थिनां शरीरे संख्या स्यात्षष्टियुक्तं शतत्रयम् ॥९०॥
वलयाणि कपालानि रुचकास्तरुणानि च ।
नलकानीति तान्याहुः पञ्चधा ऽस्थीनि सूरयः ॥९१॥
त्रीण्येवास्थिशतान्यत्र धन्वन्तरिरभाषत ।

9. Bones, their number and types : 90-92b

The group-units¹ of bones are believed to be fourteen or eighteen. The total number of bones in the body is three hundred and sixty. (90)

The sages have classified the bones into five types, viz., *valaya*,² *kapāla*³, *rucaka*⁴, *taruṇa*⁵ and *nalaka*⁶. (91)

According to *ayurveda* the total number of bones in the body is three hundred and sixty; but according to the works of surgery, i. e. Suśruta etc. there are only three hundred bones in the whole body (cf. Suśruta Śā. Sthā. 5.17, where it is said that, "One hundred and twenty bones are to be found in the four extremities, one hundred and seventeen in pelvis, sides, back, chest and abdominal region; and sixty-three are located in the neck and the regions above that.").

Suśruta mentions only fourteen group-units, i. e., the collections of bones which are found in the two ankles, the two knees and the two groins, the two wrists, two elbows, two axillas, one in cranium and the other in the sacral region.

1. *Saṅghāta* is a collection with integrity, i. e., a group working as a unit.
2. *Valaya* type includes bones found in the palm, foot, sides, back, chest and the abdominal region.
3. *Kapāla* type includes the bones situated in the knee joints, shoulders, hips, cheeks, palate, temples and the cranium.
4. Teeth form the *rucaka* type.
5. *Taruṇa* type includes the bones in the nose, ears, throat and the socket of the eyes.
6. *Nalaka* type of bones, as their name implies, are all the remaining ones of the cylindrical shape.
cf. Suśruta Śā. Sthā. 5.21 and Bhisagratna, pp. 165, 166 for further details.

10. अस्थिसन्धयः, तेषां सङ्ख्या भेदाश्च

द्वे शते त्वस्थिसन्धीनां स्यातामत्र दशोत्तरे ॥९२॥

कोरकाः प्रतरास्तुन्नाः सीवन्यः स्युल्लूखलाः ।

सामुद्गा मण्डलाः शङ्खावर्ता वायसतुण्डकाः ॥९३॥

इत्यष्टधा समुद्दिष्टा मुनीन्द्रैरस्थिसन्धयः ।

Dhanvantari,⁷ however, has spoken of only three hundred bones. (92b)

10. Bone joints, their number and types : 92c-94b

As pointed out by the sages, the joints are two hundred and ten in number, classified into eight types, viz. *koraka*¹,

The other four group units of bones are—one above the sacrum, one above the chest, one at the junction of the thorax and abdomen, and one at the acromial end of the scapula (cf. Suśruta Śā. Sthā. 5.15.16. Also see p. 163 Bhishagratna). It is notable that Suśruta concedes that other authorities count four more *saṅghāta-s*.

Obviously the joints enumerated here refer to the joints of the bones. These are divided into two classes by the modern medical science, viz., immovable, i.e., synarthrosis and movable, i.e., diarthrosis. The names of the various types such as *kora* etc. are indicative of the shapes they resemble, and their respective significations are elucidated in the notes. The particular joints of the body covered under each type are as under :

1. *Koraka*—joints in the fingers, wrists, ankles, knees and elbows.
2. *Pratarā*—joints in the neck and the spinal columns.
3. *Tunna-sivanti*—joints found in the *kapala* bones of pelvis and the forehead.
4. *Ulakhala* or *Udakhala*—joints in the axilla (i.e. the shoulder joint, in the teeth and in the hips).
5. *Sāmudga*—joints in the region of the anus, vagina, shoulders and hips.
6. *Maṇḍala*—joints around the heart, throat, eyes and kloma.
7. *Śaṅkhāvarta*—joints in the bones of the ears and nostrils.
8. *Vāyasatuṇḍa*—joints on either side of the cheek bones.

7. An ancient authority of Indian medical science.

1. *Koraka*, lit. means hinged or lap-shaped.

11. अन्यसन्धीनां संख्या

पेशीस्नायुसिरासन्धिसहस्रद्वितयं मतम् ॥९४॥

12. स्नायवः

नव स्नायुशतानि स्युश्चतुर्धा स्नायवो मताः ।

प्रतानवत्यः सुषिराः कण्डराः पृथुलास्तथा ॥९५॥

*pratarā*², *tunna-sivanti*³, *ulakhala*⁴, *sāmudga*⁵, *māṇḍala*⁶, *śaṅkhā-varta*⁷ and *vāyasatuṇḍaka*⁸. (92c-94b)

11. The number of other joints : 94cd

The joints of muscles, sinews and veins are considered to be two thousand. (94cd)

12. Ligaments¹ : 95-96

There are nine hundred ligaments² classified into four (cf. Suśruta Śā. Sthā. 5. 28-32, Bhishagratna, p. 167, Vol. II and Ghanekar, p. 168, Vol. II.)

The eight types of the joints have been classified by Ghanekar in consonance with the modern medicine as under :

| | | | |
|----------------------------------|--------------------------|----------------|--------------|
| | <i>Kora</i> | Pivot | |
| | | Saddle | |
| <i>Cala</i> , i. e. movable | | Condyled | Diarthrosis |
| | | Hinge | |
| | <i>Vāyasatuṇḍa</i> | Arthrodia | |
| | <i>Pratarā</i> | Enarthrosis | |
| | <i>Ulakhala</i> or | | |
| <i>Acala</i> i. e., immovable | <i>Udakhala</i> | Gomophoses | Synarthrosis |
| | <i>Tunna-sivanti</i> | Sutures | |
| | <i>Sāmudga</i> | Amphiarthroses | |

2. *Pratarā*, lit. means a raft.
 3. *Tunna-sivanti* means seam-like or dove-tailed.
 4. *Ulakhala* suggests the shape of ball and socket.
 5. *Sāmudga* is like the back of the palm.
 6. *Maṇḍala*, lit. means a circle or circular.
 7. *Śaṅkhāvarta* indicates the involutions of a conch-shell.
 8. *Vāyasatuṇḍa* means the crow-back.
- 1, 2. *Snāyu* is roughly translated as ligament in this context.

बन्धनेर्बहुभिर्बद्धा मूरिभारक्षमा भवेत् ।
नोरम्भसि यथा स्नायुशतबद्धा तनुस्तथा ॥९६॥

groups, viz., *pratānavati*³ *suṣirā*⁴ *kaṇḍarā*⁵ and *pṛthulā*⁶. Just as (the planks of) a boat being tied together by many fastenings become strong enough to bear a huge burden (floating) on water, so also (the joints of) the body being fastened by the ligaments (becomes strong). (95-96)

The four groups of the *snāyu-s* correspond to ligaments, sphincter muscles or valvular bands of muscles, tendon, and flattened or ribbon-shaped tendons or aponeuroses as stated by Ghanekar (Vol. II, pp. 158, 159) and Suśruta (Śā. Sthā. 5.38-40).

In *Āyurveda* the word *snāyu* also means a muscle, obviously the number 900 includes ligaments, tendons and aponeuroses along with some of the muscles. The word generally means fibrous tissue. So the word *snāyu* has only loosely been translated as ligament. The four types of ligaments are elucidated as under :

1. *Pratānavati* type : The ligaments of the four extremities and their joints.
2. *Suṣirā* „ The ligaments of stomach, intestines and the bladder.
3. *Kaṇḍarā* or „ All the large ligaments.
Vṛttā
4. *Pṛthulā* „ The ligaments of the chest, back, sides and head.

The function of the ligaments is explained by the analogy of a boat. The many planks by themselves cannot serve the purpose of a raft, but when they are joined together and tied to form a boat they become strong enough to carry a certain load across a river; similarly, the various parts of the body when fastened together by the ligaments render the body strong and movable. Such is the importance of the ligaments (cf. Bhishagrātna, pp. 168, 169 and Suśruta Śā. Sthā. 5.30-36).

3. *Pratānavati* lit. means ramifying or branching.
4. *Suṣirā* lit. means hollow.
5. *Kaṇḍarā* lit. means a cave and is suggestive of a cylindrical form; however the other name for it, viz., *vṛttā* implies a round or a ring shape.
6. *Pṛthulā* is derived from *pṛthu* which literally means thick or broad.

13. पेश्यः

पञ्च पेशीशतान्याहुः शरीरस्थानि सूरयः ।
अधिका विंशतिः स्त्रीणां तत्र स्युः स्तनयोर्दश ॥९७॥
यौवने ताः प्रवर्धन्ते दश योनौ तु तत्र च ।
द्वे अन्तः प्रसृते बाह्ये द्वे तिस्रो गर्भमार्गगाः ॥९८॥
शङ्खनाभ्याकृतिर्योनिस्त्रयावर्ता ऽत्र तृतीयके ।
आवर्ते गर्भशय्या ऽस्ति पित्तपक्वाशयान्तरे ॥९९॥
रोहिताभिधमत्स्यस्य सदृशी तत्र पेशिका ।

* शुक्रार्तवप्रवेशिन्यस्तिस्रः प्रच्छादिका मताः ॥१००॥

13. Muscles: 97-100

The sages speak of five hundred muscles in the body, while there are twenty more in case of women, i.e., ten in the two breasts that grow in youth and ten of the vagina, two spreading outwards¹, two inside it and three in the vaginal canal. (97-98)

The vaginal canal is in the shape of a conch-shell with three involuted turns², at the last of which lies the foetal

Five hundred muscles in the body along with twenty extra of women make five hundred and twenty which may be compared to five hundred and nineteen of the modern medical science. Regarding the twenty extra muscles of women, Bhishagrātna writes on Suśruta (Śā. Sthā. 5. 42-43) : "Females have twenty extra muscles; ten muscles are to be found about the two breasts, five in each, which attain their full growth during puberty; four muscles are present about the parturient passage; and of these (four) two are about the external and two in the internal orifices (of the vagina), three about the region of the OS, and three about the passages of the ovum and the sperm." This makes the situation clear. The last three of these are mentioned in the next two verses.

The uterus is like a muscle resembling *rohita* fish in shape. Suśruta (Śā. Sthā. 5. 56) says that uterus resembles the mouth of the *rohita* fish. It seems that our author too has adopted this idea from Suśruta and if so, then '*matsyasya*' of the text may better be read as *matsyāṅgya*, signifying, not "of the resemblance of" but, "resembling the mouth of" the

1. These two constitute the sphincter vagina (cf. Ghanekar on Suśruta Śā. Sthā. 5. 55, 56).
2. *Āvarta* of the text literally means a whirlpool.

• Ad. ed. reads गुक्ता•

14. सिराधमनिकानां सङ्ख्या

सिराधमनिकानां तु लक्षाणि नवविंशतिः ।

सार्धानि स्युर्नवशती षट्पञ्चाशद्युता तथा ॥१०१॥

bed⁸ resembling the fish called *rohita*⁴ in-between the gall-bladder and the intestines. Three⁵ (muscles) are known as the coverings (of the uterus) serving for the entrance of the ovum and the sperm. (99-100).

14. The number of arteries and veins : 1 1

The number of arteries and veins (in the body) is 29, 50, 956. (101)

rohita fish. The mouth of the *rohita* fish is said to be narrow at the mouth and expanded at the end.

The description of the vaginal canal is compared by Ghanekar with the account given in Gray's anatomy "The vaginal canal like the shape of a conch-shell is constricted at its commencement, dilated in the middle and narrowed near its uterine extremity (Ghanekar, Vol. II, p. 164 commenting on Suśruta 5.55-56).

He further says that there is nothing like the whirlpools in the constitution of the vaginal canal but its inner layer of skin is marked with ridges.

The word *sirā* denotes veins, nerves, arteries and lymphatic vessels. Our author however is dealing with the arteries separately in the subsequent few verses. Suśruta (Śā. Sthā. 7.2) straightaway speaks of seven hundred *sirā-s*, therefore the ten primal *sirā-s* are peculiar to our author who subsequently mentions that these ten branch off into seven hundred. Suśruta who also speaks of *dhamant-s*, i. e., arteries later, describes forty principal *sirā-s* of four types viz., ten *vāyu* (wind)-carrying, ten *pitta* (bile)-carrying, ten conveying *kabha* (phlegm) and ten blood-carrying, which are respectively identified by Bhisagratna (Vol. II, p. 192) as nerves, veins, lymphatic vessels and arteries. Some people, however, interpret *sirā-s* for veins and *dhamant-s* for arteries. But, one cannot really make such a sharp distinction, for the two terms are sometimes used indiscriminately.

3. *Garbhāśaya*, according to Ghanekar, also means uterus, but here it is the foetal cavity that is indicated.
4. *Matsya-sya* of the text may be read as *matsyā-sya-sadṛṣi* in view of the above comments.
5. These are the three remaining out of the ten spoken of above (Verse 97-98 ante).

15. मूलसिराः, भिन्नसिराश्च

दश मूलसिरा ओजोवाहिन्यो हृदयाश्रयाः ।

द्व्यङ्गुलं चाङ्गुलदलं यवं यवदलं तथा ॥१०२॥

गत्वा द्रुमदलस्येव सीवन्यः प्रतता यवा ।

भिद्यन्ते तास्तदा सप्त शतानि परिसंख्यया ॥१०३॥

तासु जिह्वास्थिते द्वे द्वे वाग्रसंज्ञानकारणे ।

घ्राणे गन्धवहे द्वे द्वे मेषोन्मेषकृतौ दृशोः ॥१०४॥

श्रोत्रयोः शब्दवाहिन्यौ तासु द्वे शार्ङ्गिणोदिते ।

15. The number of major and minor vessels of vital essence: 102-105b

There are ten primal (blood-vessels) carrying the vital essence abiding in the heart. (102 ab)

Spaced from two fingers¹ and a half to a barley² corn and a half, when the capillaries spread to branch off like the leaf-veins, then they number seven hundred. (102c-103)

Of these,³ two veins that cause speech and two causing the perception of taste are located in the tongue; two in the nose for the perception of smell and two in the eyes causing the winking (of eyelids); and two pertain to the ears, carrying sound (waves) as declared by Dhanvantari⁴. (104-105b)

The ten primal-tubular vessels springing from the heart are interspaced at the length of two fingers and a half, to begin with; and gradually they branch off into narrower and finer tubular veins etc., spaced at the length of a barley and a half. Thus finally the *sirā-s* are counted to be seven hundred in all as mentioned by Suśruta, according to whom they spring from the navel region.

1. *Angula* is equal in length to eight barley corns. Twelve *angula-s* make a *vitasti* (a span) and twenty-four *angula-s* make for a *hasta* (a cubit).
2. A measure equal to one-sixth or one-eighth of *angula* (i. e., the finger breadth).
3. Perhaps, of the ten primal ones.
4. The divine physician considered to be the father of Indian medicine.

16. रसवाहिन्यो धमन्यः

धमन्यो रसवाहिन्यश्चतुर्विंशतिरोरिताः ॥१०५॥
 कुल्याभिरिव केदारास्ताभिर्वेहो ऽभिवर्धते ।
 एताः प्रतिष्ठिता नाम्नां चक्रनाभावरा इव ॥१०६॥
 ऊर्ध्वं दश दशाधस्ताच्चतस्रस्तिर्यगायताः ।
 ऊर्ध्वगा हृदयं प्राप्ताः प्रतायन्ते पृथक्त्रिधा ॥१०७॥
 वातं पित्तं कफं रक्तं रसं द्वे द्वे विमुञ्चतः ।
 शब्दं रूपं रसं गन्धं द्वे द्वे तत्रावगच्छतः ॥१०८॥
 द्वे द्वे च भाषणं घोषं स्वापं बोधं च रोदनम् ।
 कुर्वति द्वे नरे शुक्लं स्तन्यं तु स्रवतः स्त्रियाम् ॥१०९॥
 अधोगता अपि त्रेधा पृथक्पक्वाशयस्थिताः ।
 प्रवर्तयन्ति तत्राद्या दश वातादि पूर्ववत् ॥११०॥
 भन्नं भुक्तं धमन्यो द्वे वहतो ऽम्बुसमाश्रयात् ।
 तोयं मूत्रं बलं द्वे द्वे नारीणामार्तवं त्विमे ॥१११॥
 विमुञ्चतो द्वे स्रोतांसि द्वे स्थूलान्त्रान्विते शकृत् ।
 स्वेदं समर्पयन्त्यष्टौ,
 तिरश्च्यो बहुधा मताः ॥११२॥

रोमकूपेषु सन्त्यासां मुखानि स्वेदमुक्तये ।
 प्रवेशयन्ति चाभ्यङ्गलेपादिप्रभवान् रसान् ॥११३॥

16. The arteries carrying lymph-chyle (*rasa*): 105c-113

The arteries carrying lymph-chyle (*rasa*) are known to be twentyfour and like a field nourished by channels of water, the body (fed by them) also grows. (105c-106b)

These (arteries) are so rooted around the umbilicus¹ as the spokes fitted into the hub of a wheel. (106cd)

Suśruta (Śā. Sthā. 91.92) refers to several authorities who emphasise that no arbitrary distinctions should be made between *sirā-s* (veins),

1. This refers to the state of embryonic body during the period of gestation, since the allantoic arteries and the umbilical veins subserved the purposes of nutrition, excretion etc. reflecting the rudimentary vascular system. After the birth, the

(Of these) ten proceed upwards, ten downwards and laterally. The upward coursing (arteries) reaching the heart ramify into three (branches) each.² (Of these) two each respectively conduct wind, bile, phlegm, blood and lymph-cycle (*rasa*); two each respectively perceive the sensations of sound, form, taste and smell, two each respectively cause the activity of speech, hearing, sleep, awakening and crying; and two go to produce semen in men and milk in women (107-109).

The down-coursing arteries³ are also threefold and separately function in and around the intestines.⁴ The first ten function with respect to wind etc. on the above lines⁵, two carry digested food on liquid base, two each respectively release water⁶, urine, semen or the ovarian discharge of women, two are channels⁷ (*srota-s*) while two others attached *dhamant-s* (arteries) and *srota-s* (channels) since these are all modifications of the original *sirā-s* (tubular vessels). But, however, he does not agree with this opinion, holding that these different terms denote different functions performed by the *sirā-s*. However, he too admits that signification.

The up-coursing thirty *dhamant-s* perform the function of preserving the integrity of the organs of the upper portion of the body, i. e., above the umbilicus, such as stomach, the sides and the back of the chest, the neck, shoulders and the arms (cf. Bhishagratna, Vol. II, p. 210 on Suśruta Śā. Sthā. 9.4).

The blood vessels (*dhamant-s*) sustain and maintain the integrity of the lower body, i. e., such parts as the intestines, the waist, the generative organs, the anus and the bladder.

- arteries are connected to the heart (cf. Ghanekar, Vol. II. 215 and Bhishagratna, Vol. II, p. 209).
2. When each of the ten up-coursing arteries ramify into three, they make thirty in all.
3. Again the word artery is a loose translation of *sirā* which generally means a blood vessel.
4. *Pakvāśaya* of the text obviously refers to the small intestines.
5. That is, two serve to carry flatus (wind), two carry bile, two phlegm, two blood and two lymph-chyle.
6. *Toya* going into the bladder becomes urine.
7. These two channels are not clearly related to any function. Bhishagratna, relates them to the monthly course of women (cf. Vol. II, p. 211 on Suśruta Śā. Sthā. 9.6).

17. मर्मस्थानानि

जीवस्थानानि मर्माणि शतं सप्तोत्तरं विदुः ।

18. रोमाणि, श्मश्रु केशाश्च

सार्धकोटित्रयं रोम्णां श्मश्रुकेशास्त्रिलक्षकाः ॥११४॥

त्रोटःसिराश्मश्रुकेशः सह रोम्णां तु कोटयः ।

चतुःपञ्चाशदाख्याताः सप्तषष्ट्या च सार्धया ॥११५॥

लक्षाणां संहितामानं,

to the large intestines discharge the faecal matter. Eight (of the arteries) exude⁸ perspiration. (110-112c)

The lateral-coursing vessels (arteries) are considered to be countless. Their external orifices open into the pores of the skin⁹ for exuding perspiration, and also through them are entered soothing nutrients, the effects of anointment and unguents. (113d-113)

17. The vital parts (*marmasthāna-s*). (114ab)

The vital parts¹ constituting the life spots (of human organism) are known to be one hundred and seven. (114ab)

18. Hair on the body, beard and the head : 114c-116a

The hair on the body are 3,50,00,000; the hair of the beard and the head are 3,00,000. The combined total

Compare this with Suśruta (Śā. Sthā. 9.8) who speaks of four lateral-coursing *dhamantī-s* ramifying into thousands. The *dhamantī-s* are porous by themselves and they transport lymph-chyle through their pores to the entire body (cf. Suśrutā Śā. Sthā. 9.9).

8. According to Suśruta (as quoted above) these eight convey the perspiration to lateral-coursing veins.

9. *Romakūpa* lit. means the root(s) of the hair on the body, i.e., the pores into which the hair are rooted.

1. *Marma* is defined '*mārayantīti marmāni*' (Dhalhaṇa), i.e. 'Those parts that (tend to) cause death; in other words, those vital parts which when injured cause the collapse of the entire organism' The concept of *marma* is unique to *Ayurveda*. In fact there are many such concepts that can hardly be rendered into English in terms of modern anatomy.

19. देहस्थरसानां मानम्

जलादेरधुनोच्यते ।

दशाञ्जलि जलं ज्ञेयं रसस्याञ्जलयो नव ॥११६॥

रक्तस्याष्टौ पुरोषस्य सप्त स्युः श्लेष्मणस्तु षट् ।

पित्तस्य पञ्च चत्वारो मूत्रस्याञ्जलयस्त्रयः ॥११७॥

वसाया मेदसो द्वौ तु मज्ज एको ऽञ्जलिर्मतः ।

अर्धाञ्जलिः शिरोमज्जा श्लेष्मसारो बलं तथा ॥११८॥

number of the channels, veins, hair of the beard, on the head and on the body is 54,67,50,000. (114c-116a)

19. The measure of fluids in the human body : 116b-118

Now we are to describe (the measure of) the aqueous element¹ (of the body). Ten *añjali-s*² of water, nine of lymph-chyle, eight of blood, seven of faecal matter, six of phlegm (or mucus), five of bile, four of urine, three of muscle fat, two of fat, one of bone marrow, half an *añjali* each of head marrow³, colloidal vital⁴ essence and seminal fluid. (116b-119)

Srota-s ordinarily signify tubular structures in the body such as ducts, blood vessels and capillaries. This word illustrates another such concept which does not easily lend itself to be translated precisely. Our author does not write much on the *marma-s* and the *srota-s*, and therefore, the temptation to give detailed information on these topics on the basis of Suśruta is well restrained.

1. The aqueous element is found (i) associated with faecal matter, (ii) in the outer skin, (iii) below the skin and (iv) exuding from hair follicles, viz., perspiration.

2. Measure equal to the cavity formed by joining one's two hands in a cup-like fashion.

3. *Śiromajja* of the text. Cf. Caraka Śā. Sthā. 7.15, who identifies it with brain (*mastiṣka*).

4. *Śleṣmasūra* of the text.

20. उपसंहारः

इति प्रत्यङ्गसंक्षेपो विस्तरस्त्वह तत्त्वतः ।
अस्मद्विरचिते ऽध्यात्मविवेके वीक्ष्यतां बुधैः ॥११९॥

20. Concluding remarks: 119

Such has been the brief treatment of the sub-organs. The enlightened ones interested in a detailed study may refer to our work entitled "Adhyātma-viveka". (119)

As it has been stated earlier, Śārāṅgadeva was himself a qualified doctor and wrote another work referred to above on anatomy and medicine. But this book is probably not available today. Here he completes his treatment of human embodiment.

It has been noted (vide our comments on I ante) that Śārādātānaya, a contemporary of our author has quite independently and very briefly dealt with human embodiment in the context of *geya-samutpatti* (the creation of music). It will be interesting to take a comparative view of the manner of their treatment of the subject and to discover the difference in the point of their emphasis.

Śārādātānaya deals with the following topics in his exposition of *geya-samutpatti* which obviously determines his approach and relative emphasis :

"Announcement for expounding *geya*, music—the thirtysix elements of creation—the creation—the entry of the knowing self into the womb—the genesis of human embodiment—description of the body produced from the womb, classification of *prāṇa-s*, their place and function—the ten gross *nāḍī-s* of the heart—their bifurcation into 700 *nāḍī-s* and so on." (cf. *Bhāvaprakāśanam*, pp. 180-184-Baroda Ed.)

A similar number of subjects related to human body is dealt with in conjunction with the production of sound. A list of these subjects will be given in Section three (8c-9), although much of what is said by him is also relevant to the next topic of this Section, viz., "Genesis-The Psycho-physical Viewpoint", but all the same he does not explicitly deal with the psycho-physical centres of the body.

घ. हठयोगानुसारि निरूपणम्

(i) दशचक्राणि

1. आधार-चक्रं कुण्डलिनी च

गुदलिङ्गान्तरे चक्रमाधाराख्यं चतुर्दलम् ।
परमः सहजस्तद्वदानन्दो वीरपूर्वकः ॥१२०॥
योगानन्दश्च तत्र स्यादेशानादिदले फलम् ।
अस्ति कुण्डलिनी ब्रह्मशक्तिराधारपङ्कजे ॥१२१॥
आन्नहारन्ध्रमृजुतां नोतेयममृतप्रदा ।

D. Genesis : The psychophysical viewpoint.

(i) Ten *cakra-s* (psychophysical centres): 120-145b

1. *Ādhara-cakra* and *kuṇḍalinī* : 123-122b

Situated in-between¹ the anus and the genitals is the basic psychic centre called the 'foundational cycle' (*ādhara-cakra*), a four-petalled lotus as it were. The petals named

Six psycho-physical centres are conceived in the astral body of man by certain schools of *Yoga*, specially, the *kuṇḍalinī-yoga*, the *mantra-yoga*, the *rāja-yoga*, etc. These function as the centres of consciousness at various planes and concentration and control of one or many of these centres bestows enormous psychic and occult powers. However, the aim of *yoga* is to train the mind to concentrate upon and penetrate through all these six psycho-physical centres and thereby to attain complete mastery over the physical and the astral body and freedom from the limitations of mind and matter.

The first centre spoken of in this verse is named *mūladhāra*, which literally means the basic support, the foundation. Here at this centre the kinetic energy is said to be asleep in a static mood and it can be aroused through meditation. The four-petalled lotus spoken of in the text is a symbolic expression used as an aid to meditation on the centre, when the slumbering energy is awakened, it rushes through the spinal cord to the next higher centre at a terrific speed, and the aspirant finds

1. Corresponding to the sacrococcygeal plexus.

śāna etc.², are invested with the fruits of supreme bliss, spontaneous happiness, heroic joy, and the divine unity respectively. (120-121)

In the centre of the foundational cycle³ lies the creative⁴ power of the supreme Being⁵ called *kuṇḍalini*⁶, which

himself uplifted to a different plane of consciousness with a different perception and value judgement.

Here the value of concentrating separately, i. e., individually upon the four respective petals of the symbolic lotus is expressed in different kinds of bliss. This concept seems to be peculiar to *Saṅgitaratnākara* and 'K' suggests that it relates to the position of the embodied consciousness (the transmigratory soul) in this *cakra* at the time of birth. This will be elucidated later (vide comments on 40-141b). It is not possible, nor perhaps advisable to elucidate the whole symbolism of the *kuṇḍalini-yoga* here but the underlying idea can be summarised in the following way :

Letters of alphabet (i. e. *Devanāgarī* script in this case) are inscribed on the petals of the lotuses of the various centres. The letters so assigned represent symbolically the particular *mantra* and the presiding deity of that *mantra*, and thereby are the potential sources of the power inherent in those deities. These powers can be invoked by meditation. In this general background, it may now be noted that the four petals of the foundational cycle have the letters *va*, *śa*, *ṣa* and *sa* assigned to them. Furthermore there are great many details regarding the colour, the predominant element etc. of the various cycles with which we need not concern ourselves here, except in a general way.

2. The names of the other three petals are *agnya*, *nairṣṭa* and *vāyavya*. In this respect K. R. informs as under :

"From the front clock-wise are the four points, namely east, south, west and north, and four intermediate points, namely, south-east, south-west, north-west, and north-east. North east is *śāna* (the position presided by Śiva). The other three points in order of the fruits described are south-east, south-west and north-west."

3. The *adhara pañkaja* of the text.
4. *Brahma-śakti* of the text.
5. *Brahman* of the text.
6. *Kuṇḍalini* literally means coiled up, curved, zig-zag like a serpent; that is perhaps why Sir John Woodroffe called it the serpent Power. Kumaraswami of Tapovana, Dharwar, describes *kuṇḍalini* in the following words: "*Kuṇḍalini* is the residual power, the power left over after the production of the body when it coils itself around the *svayambhū liṅga* that is, the conus medullaries" (cf. *Chakra* Vol. III, 1971, p. 112).

2. स्वाधिष्ठान-चक्रम्

स्वाधिष्ठानं लिङ्गमूले षट्पत्रं चक्रमस्य च ॥१२२॥

पूर्वादिषु दलेष्वाहुः फलान्येतान्यनुक्रमात् ।

प्रश्रयः क्रूरता गर्वनाशो मूर्च्छा ततः परम् ॥१२३॥

अवज्ञा स्यादविश्वासः कामशक्तेरिदं गृहम् ।

in the event of being unfolded⁷ bestows immortality.⁸ (121c-122b)

2. *Svādhiṣṭhāna-cakra* : 122c-121b

Situated at the root of the genitals is the six-petalled lotus, the psycho-physical centre called 'self-abiding cycle'

The creative power of the supreme Being, of *Brahman*, the kinetic energy, the *śakti* of Śiva and the *māyā* of *Brahman*, the power of creating appearances, is stationed at the root of the spinal column. Ordinarily this energy lies curved into a coil (i. e., three rounds and a half) and that is why it is called *kuṇḍalini*. But by concentration and meditation its coils are unfolded and in that event it rushes up the spinal cord to the upper cerebrum and reaches the mystic cerebral aperture (*brahma-randhra*) and this results in enlightenment, an experience of timeless being which is immortality.

Though it may be a matter of greater detail, yet in the context of this verse it may be pointed out that according to the *Ṣaṭcakra-nirūpaṇa* the foundational cycle is the place where the female principle represented by a triangle, the *yonī* known as *traipura* is located, and in this triangle is set the male principle represented by the *svayambhū* (lit. self-born) *liṅga*. *Kuṇḍalini* which is the creative power of the absolute *Brahman* or the energy aspect of non-relational-reality, lies coiled over the *svayambhū Śiva-liṅga* (referred to above) covering the entrance to the *suṣumṇā-nāḍī* with her head. It is this entrance which is technically known as *Brahmadvāra* (lit. the doorway to the absolute).

The word *svādhiṣṭhāna* (etymologically analysed as *sva+adhi+sthāna*, i. e., one's own seat) is variously interpreted. Some identify *sva*

7. Literally, 'straightened' or 'uncoiled'.

8. Literally, 'ambrosia'.

(*svādhiṣṭhāna-cakra*).¹ The consequent fruits² of (concentration on) the eastern and the other petals are respectively said to be courtesy³, cruelty, freedom from pride⁴, stupor, disrespect and distrust. This is the seat of passion.⁵ (122c-124b)

with the *Sivaliṅga*, i. e., the *Parā liṅga*, the supreme one of the four symbolic *liṅga-s* of this yoga. Then the word *svādhiṣṭhāna* would mean abode of Śiva. But others interpret *sva* etymologically with reference to the *kuṇḍalīnī* power, implying this cycle to be the abode of its own power. However, it would be rewarding if one were to have a look at the result of meditating on this *cakra* as given in the *Saṭcakraṅirūpaṇa* (cf. verse 18 as translated by Sir John Woodroffe in his 'Serpent Power', p. 364).

"He who meditates upon this stainless lotus, which is named *svādhiṣṭhāna*, is freed immediately from all his enemies such as the fault of *ahaṅkāra* (ego) and so forth etc."

The enemies referred to are *kāma*, *krodha*, *lobha*, *moha*, *ahaṅkāra*, i. e., desire, anger, greed, delusion and ego. It is these five that are at the root of all self-centred activity, worldliness and sin, all that turns man into a beast. Thus it is obvious that this cycle is the centre, the abode of the illusive power of *māya*, the *kuṇḍalīnī*.

The six petals of the lotus bear the six letters from left to right *ba*, *bha*, *ma*, *ya*, *ra*, and *la*, with a dot above (*anusvāra*).

1. *svādhiṣṭhāna* literally means self-supporting. This centre corresponds to the sacral plexus in the physical body. The specific power developed through meditation on this centre is transcendence of the sex-consciousness.
2. The underlying idea seems to be that specific qualities are developed through concentration on different petals. These qualities are mental dispositions of various colours.
3. Courtesy is thus developed by meditating on the eastern petal and so on.
4. Lit. destruction of pride.
5. When *kuṇḍalīnī* is released from this centre and is pushed up in the next higher one described subsequently, control with regard to sexual power is gained.

3. मणिपूर-चक्रम्

नाभौ दशदलं चक्रं मणिपूरकसंज्ञितम् ॥१२४॥
सुषुप्तिरत्र तृष्णा स्यादीर्ष्या पिशुनता तथा ।
लज्जा भयं घृणा मोहः कषायो ऽथ विषादिता ॥१२५॥
क्रमात्पूर्वादिपत्रे तु स्याद्भानुभवनं च तत् ।

3. *Maṇipūra-cakra* : 124c-126b

The ten-petalled lotus, the psychophysical centre called the 'navel cycle'¹ (*maṇipūra-cakra*) is located around the navel. The results flowing out of (meditation on) the eastern and other petals respectively are: dreamless sleep², craving, jealousy, fault-finding nature, bashfulness, fear, hatred, stupidity³, impropriety and dejection. This centre is the seat of a particular *prāṇa* called *bhānu*⁴. (124c-126b)

Maṇipūra or *maṇipūra-cakra* is also called *nābhi-padma*, i. e., the navel lotus as it is located around the region of the root of the navel. That is why it has conveniently been named as the 'navel cycle'. The name *maṇipūra* is explained in a round-about way. It is said in the *Gautamiya Tantra* (cf. *Serpent Power*, p. 119) that owing to the presence of the fiery *tejas* (brilliance) this centre is lustrous as a gem (*maṇi*) and so it is called *maṇipūra*.

It is suggested by Sir John Woodroffe that the gross body is evolved out of the power involved in these three centres. The higher centres are concerned with mental development, i. e., the subtle body or the thought body etc. During the waking state attention is ordinarily centred on either of these three centres (cf. *Serpent Power*, p. 120).

The ten petals of the lotus of this cycle bear the letters *ḍa*, *ḍha*, *ṇa*, *ta*, *tha*, *ḍa*, *dha*, *na*, *pa* and *pha* with a dot above (*anusvāra*).

1. *Maṇipūra* of the text indicates the abdomen. This centre translated as the 'navel cycle' corresponds to the solar plexus which forms a centre of a great function of the right and the left sympathetic chains *pingalā* and *īdā*; with cerebro-spinal axis connected to this is the lumbar plexus.
2. 'S' defines dreamless sleep as the cessation of all sensual and mental activity.
3. *Moha* is defined by 'S' as a state of mind in which, even while awake one is unaware with regard to an object in the field of his normal perception.
4. *Bhānu* literally means the sun.

4. अनाहत-चक्रम्

हृदये अनाहतं चक्रं शिवस्य प्रणवाकृतेः ॥१२६॥
 पूजास्थानं तदिच्छन्ति दलैर्द्वादशभिर्युतम् ।
 लौल्यप्रणाशः प्रकटो वितर्कोऽप्यनुतापिता ॥१२७॥
 भाशा प्रकाशश्चिन्ता च समोहा समता ततः ।
 क्रमेण दम्भो वैकल्यं विवेकोऽहंकृतिस्तथा ॥१२८॥
 फलान्येतानि पूर्वादिदलस्थस्यात्मनो जगुः ।

4. Anāhata-cakra : 126c-129b

In the heart is located the psycho-physical centre called the 'cycle of the unmanifest'¹ (*anāhata-cakra*), with twelve petals which is considered to be the place of worshipping lord Śiva in the form of *Om*.² (126-127b)

The consequences meeting the mind concentrated upon eastern and other petals respectively are freedom from fickleness, clear thinking³, repentance, hope, light⁴, worry, desire

The *anāhata-cakra* is the psycho-physical centre wherein manifests 'Śabda-brahman' a concept which can best be conveyed in English by the expression 'the absolute manifested as the inarticulate word'. This centre is said to be the seat of the embodied consciousness, i. e., the *jīvātman*. *Anāhata nāda* or Unmanifest sound is associated with this centre which is considered to be the pulse of life. It is said in the *Ṣaṭcakanirūpaṇa* that one who meditates on this centre becomes a master of speech and gains the power to create and to destroy. This lotus is the seat of Śiva and the residence of *hauṣa* (the *Ātman*, cf. verse 26). Its twelve

1. *Anāhata* of the text literally means unstruck, i. e., unmanifest. This corresponds to cardiac plexus and controls the heart.
2. *Om*, properly written as *aum* is the sacred syllable of mystic value. Every vedic chant begins with *Om* and every *mantra* begins with *Om*. The three letters, two vowels combined into its make, 'a' and 'u' and the consonant 'm' symbolise the three phases of consciousness, viz. the waking state, the dream state and the dreamless sleep state; while, the dot given above it, the '*candrabindu*' denotes the *turiya*, i. e., total Being. There are great many details about it but suffice it to note that the letters of *Om* are symbolic.
3. Literally, *vitarka* means deliberation.
4. 'S' defines it as 'the absence of the non-perception of form'.

5. विशुद्धि-चक्रम्

कण्ठे ऽस्ति भारतीस्थानं विशुद्धिः षोडशच्छदम् ॥१२९॥
 तत्र प्रणव उद्गीथो हुंफड् वषडथ स्वधा ।
 स्वाहा नमोऽमृतं सप्त स्वराः षड्जादयो विषम् ॥१३०॥
 इति पूर्वादिपत्रस्थे फलान्यात्मनि षोडश ।

for warding off evil, equanimity, vanity, mental instability, discernment and will.⁶ (127c-129b)

5. Viśuddhi-cakra : 129cd-131b

The psycho-physical centre with sixteen petals, called the 'cycle of purity'¹ (*viśuddhi cakra*) is situated in the throat-larynx and is known as the abode of *Bhārati*, the goddess of learning. Contemplation on the eastern and other petals offers the following results respectively : *praṇava*², *udgītha*³,

petals bear the letters; *ka, kha, ga, gha, ṅa, ca, cha, ja, jha, jña: ta* and *tha* with a dot above.

This centre is situated at the base of the throat. *Viśuddhi-cakra* is so called because the ego-soul having perceived the spirit-soul, i. e., the *jīvātman*, the embodied consciousness having discovered the *ātman*, the boundless being within, in the 'cycle of the unmanifest', the *anāhata-cakra*, gets 'purified'. Thus it is endowed with the power to perceive the three phases of time, viz. the past, present and future. This centre is considered to be the gateway to the final emancipation from all limitations of consciousness. The sixteen petals of the lotus have sixteen vowels (from *a* to *ḥ*) for their symbols with a dot above them.

Ṣaṭcakanirūpaṇa describes the results of meditating upon this centre as under (cf. verse 31 as translated by Sir John Woodroffe in (Serpent Power, p. 391):

5. Literally, *ahaṅkṛti* may be translated as ego.
1. *Viśuddhi* literally means purity. This corresponds to the laryngeal plexus.
2. *Omkāra* is prefixed to every vedic chant.
3. *Udgītha* is the second part of a *Sāman* chant which has five parts in all, viz., *prastāva, udgītha, pratihāra, upadrava* and *nidhāna*, in serial order. *Omkāra* is also used in the commencement of the *udgītha* as we are informed by 'K'.

6. ललना-चक्रम्

ललनाऽऽख्यं घण्टिकायां चक्रं द्वादशपत्रकम् ॥१३१॥

मदो मानस्ततः स्नेहः शोकः खेदश्च लुब्धता ।

अरतिः संभ्रमश्चोमिः श्रद्धातोषोपरोधिताः ॥१३२॥

फलानि ललनाचक्रे स्युः पूर्वादिदलेष्विति ।

*humphaṭ*⁴, *vaṣaṭ*⁵, *svadhā*⁶, *svāhā*⁷, *namaḥ*⁸, nectar⁹, the seven tones *ṣaḍja*¹⁰ etc. and poison. (129c-131b)

6. *Lalanā-cakra* : 101c-133b

The psychophysical centre called *lalanā*¹ with twelve petals is situated in the back of the neck. The consequences emerging out of (concentration upon) the eastern and the other petals respectively are—arrogance, haughtiness, affection, sorrow,² agony,³ greed, disenchantment, emotional

“He who has attained complete knowledge of the *Ātman (Brahman)* becomes, by concentrating his mind (*citta*) on this lotus, a great sage, eloquent and wise, and enjoys uninterrupted peace of mind. He sees the three periods and becomes the benefactor of all, free from disease and sorrow and long-lived, and like *hansa*, the destroyer of endless dangers.”

The *lalanā-cakra*, though well-recognised, is not counted among the six main psycho-physical centres in the body demonstrated in such

4. *Humphaṭ* is a non-inflectional syllable uttered while pouring an oblation into the sacrificial fire.

5,6,7. These too are similar syllables as *humphaṭ*.

8. *Namaḥ* lit. salutation.

9. The ambrosia.

10. The names of the other notes are *ṣaḍja*, *gāndhāra*, *madhyama*, *pañcama*, *dhaivata* and *niṣāda* as we shall come across further in the text.

1. This word has not been translated, for it is not found worthwhile to do so in this case. The word literally means a woman, a wanton woman or tongue and it seems the word cannot be significantly interpreted in any of these terms. So the word has to be accepted as a technical one.

2. ‘S’ defines *śoka* (sorrow) as misery caused by known factors.

3. And he (‘S’) defines *kheda* (agony) as misery due to unknown causes.

7. आज्ञा-चक्रम्

भ्रूमध्ये त्रिदलं चक्रमाज्ञासंज्ञं फलानि तु ॥१३३॥

आविर्भावाः सत्त्वरजस्तमसां क्रमतो मताः ।

excitement, the basic urge for living,⁴ devotion,⁵ satisfaction and cleverness (131c-133 b).

7. *Ājñā-cakra* : 133c-134

The psycho-physical centre called the ‘cycle of supreme command’¹ (*ājñā cakra*), having three petals is located in-between the two eye-brows. The results of (contemplating upon) the various petals respectively are the manifestations of the three *guṇā-s*—*sattva*, *rajas* and *tamas*². (133c-134b)

standard works as *Ṣaṭcakra-nirūpaṇa*. This centre is also called *kala-cakra* by some writers and is located at the root of the palate.

Ājñā-cakra is so called because it is said that the *ājñā* (command) of the *guru*, the supreme preceptor is obtained directly by contemplating in the region of this centre. (cf. *Rudrayamala* Ch. XXVII, V. 68 cited by Arthur Avalon in his English translation of the *Ṣaṭcakra-nirūpaṇa*, *Serpent Power*, p. 395—footnote 6). This cycle is the seat of the mind, of *mahat* and *prakṛti*, i. e., the mindstuff (consciousness), intellect, ego and will. A successful *yogi*, at the time of death, establishes his vital breath in this centre and consequently abides in the timeless being after death. The two petals of this lotus bear the letters *ha* and *kṣa*. This completes the garland of letters of fifty petals in all.

4. Six basic urges for life are known in the *Āgama-s*, as quoted by ‘S’.

बुभुक्षा च पिपासा च शोकमोहो जरा मृतो ।

कर्मयः वह्निति प्राणबुद्धिदेहेषु संस्थिताः ॥

Hunger, thirst, sorrow, delusion, decay and death—these are the basic urges resident in the vital breath, the mind and the body.

5. *Śraddhā* also means faith, it is rather an attitude of reverence, faith and devotion combined with love.

1. *Ājñā* literally means ‘command’. Concentration on this centre gives one the command of the body and the mind. One becomes the commander of one’s forces. This centre corresponds to the cerebellum, identified by some with the pineal gland, the centre of the third or the spiritual eye.

2. These three comprehend the entire nature.

8. मनश्चक्रम्

ततो ऽप्यस्ति मनश्चक्रं षड्दलं तत्फलानि तु ॥१३४॥

स्वप्नो रसोपभोगश्च घ्राणं रूपोपलम्भनम् ।

स्पर्शनं शब्दबोधश्च पूर्वादिषु दलेष्विति ॥१३५॥

9. सोम-चक्रम्

ततो ऽपि षोडशदलं सोमचक्रमितोरितम् ।

दलेषु षोडशस्वस्य कलाः षोडश संस्थिताः ॥१३६॥

8. *Manas'-cakra* : (134c-135)

Even higher than that is situated the psychophysical centre called the 'cycle of the mind'¹ (*manas'-cakra*), having six petals. The consequences attendant upon the eastern and other petals respectively are dreams and the palatal enjoyment, olfactory sensation and the perception of form, touch and sound. (134c-135)

9. *Soma-cakra* : (136-138)

Over and above that¹ is located the psycho-physical centre called the 'cycle of the moon' (*soma-cakra*) with sixteen petals

Sir John Woodroffe (cf. *Serpent Power*, p. 155) comprehends the *ajñā-cakra* and the *manas'-cakra* jointly as the 'sensory motor tract' relating their functions in the following way :

"The *ajñā-cakra* *nāḍī-s*, efferent or motor nerves, communicate motor impulses to the periphery from this *ajñā-cakra*, this centre of command over movements, and the efferent or sensory nerves of the special senses in pairs, the *gandhavahā nāḍī* (olfactory sensory), the *rūpavahā nāḍī* (optic), the *śabdavahā nāḍī* (auditory), the *rasavahā nāḍī* (gustatory), and the *sparsāvahā nāḍī* (tactile) come from the periphery (the peripheral organs of the special senses) to this *manas'-cakra*, the sensory tract at the base of the brain. The *manas'-cakra* also receives the *manovahā nāḍī*, a generic name for the channels along which centrally initiated presentations (as in dreaming and hallucination) come to the sixth lobe of the *manas'-cakra*."

Soma-cakra is not included into the scheme of the six main psychophysical centres. The word *soma*, in this context, refers to the

1. This comprehends consciousness. The six petals symbolise five senses of perception and (the sixth) the mind, and the fruits spoken of are the five respective perceptions and ideation, the activity of the mind. This cycle is not included in the scheme of the main six psychophysical centres and seems to be concerned with the subconscious and conscious mind.

1. 'That' refers to *manas'-cakra*.

कृपा क्षमाऽऽर्जवं धैर्यं वैराग्यं धृत्तिसंमदौ ।

हास्यं रोमाञ्चनिचयो ध्यानाशु स्थिरता ततः ॥१३७॥

गाम्भीर्यमुद्यमोऽच्छत्वमौदार्यकाप्रते क्रमात् ।

फलान्युद्यन्ति जीवस्य पूर्वादिदलगामिनः ॥१३८॥

enshrining the sixteen phases (of the moon). The consequences, for the individual, attendant upon the eastern and other petals respectively are: grace², forgiveness³, straightforwardness, forbearance, detachment, patience, cheerfulness, mirth, horripilation⁴, tears of fixed gaze⁵, stability, profundity, endeavour, purity of heart, generosity and one-pointedness. (136-138)

10. सहस्रपत्र-चक्रम्

चक्रं सहस्रपत्रं तु ब्रह्मरन्ध्रे सुधाधरम् ।

तत्सुधासारधाराभिरभिवर्धयते तनुम् ॥१३९॥

10. *Sahasrapatra-cakra* : (139)

'The thousand-petalled lotus'¹ (*sahasrapatra*) which is moon which is symbolic of a feeling of coolness when the wild fire of craving is finally extinguished by rising above the *ajñā* and the *manas cakra-s*, i. e., above the world of opposites, the world of relative perception and desire. Thus, this cycle of the moon is a symbol of coolness, as the rays of the moon are cool, refreshing and delightful, and is the source of altruistic sentiments and true spiritual consummation.

The thousand petals spoken of in this lotus are symbolic of infinity. The *sahasrāra*, or *sahasrapatra* i. e., the thousand-lobed centre has *brahma-*

2. *Soma-cakra* corresponds to the middle cerebrum in the physical body and is located above the sensorium.
3. In the sense of favour 'S' defines *kṛpā* as an expectation of favour from another.
4. According to 'S' forgiveness is characterised by absence of anger despite the cause for it.
5. *Nicaya* in the compound *romāñca-nicaya* implies the idea of plurality.
6. *Dhyanāśru* is explained by 'K' as '*dhyānāñ-jātam-āśru*', i. e., the tears caused by concentration of the mind with open eyes.
1. *Sahasrapatra-cakra* Lit. the cycle of thousand petals of the text is suggestive of the metaphor of a wheel with thousand spokes. The concept is essentially of the cycle but this particular centre cannot precisely be called a psychophysical centre, since it is neither physical nor psychological as it leads the consciousness beyond the limitations of time, space and causation.

11. गीतादिसिद्धौ चक्राणां साधकत्वं बाधकत्वञ्च

अनाहतबले पूर्वोष्ठमे चक्रादशे तथा ।

द्वादशे च स्थितो जीवो गीतादेः सिद्धिमृच्छति ॥१४०॥

the source of nectar² is located in the cerebral aperture³ (*brahma-randhra*). Spilling innumerable streams of ambrosia⁴, it nourishes the body. (139)

11. Meditation of *cakra-s* as related to the cultivation of music :

The embodied soul¹ established in the (contemplation of) first, eighth, eleventh and the twelfth petals of the 'cycle of the unmanifest'² (*anāhata-cakra*) attains proficiency in music

randhra, the cerebral aperture as its location. This aperture is symbolic of void called *parama vyoma* or the highest ether or in other words, the subtlest space (cf. *Ṣaṭcakra-nirṭhāya* verses 40-48). The purport is as follows :

"Within it is the full moon, without any spot whatsoever, resplendent as in a clear sky. It shakes its rays in profusion, and is moist and cool like nectar. Inside this, shines the great void which is served in secret by all the gods." (Adapted with modifications from Arthur Avalon's translation, the Serpent Power, p. 430).

So in the void, which is identified with *bindu*, *parabindu* or *Īvara* or called *śūnya* is the light which is formless (cf. *Toḍala Tantra*, 6th Ullāsa as cited by Arthur Avalon; Serpent Power, p. 431). Thus consciousness, when established in it, transcends time. And it is this transcendental consciousness that obviously is variously named as immortality, ambrosia, nectar and so on.

Now, first of all it may be made clear that 'K' has taken the view (vide his comments on 121 ante) that at the time of birth the embodied

2. This is obviously a metaphorical expression, for nectar when drunk bestows immortality, according to Indian mythology.
3. This is the void, the space in which is projected the entire vision of life and action.
4. *Sudhāsāra* of the text. This can be interpreted to mean the harmony of body, mind and soul resulting from immortality.
1. *Jīva* generally signifies a transmigratory soul embodied in a physical body.
2. The *anāhata*, lit. means unstruck. It may once again be noted that this centre corresponds to the cardiac plexus.

चतुर्थषष्ठदशमैर्दलेर्गीतादि नश्यति ।

विशुद्धेरष्टमादीनि दलान्यष्टौ श्रितानि तु ॥१४१॥

दद्युर्गीतादिसंसिद्धिं षोडशं तद्विनाशकम् ।

दशमैकादशे पत्रे ललनायां तु सिद्धिदे ॥१४२॥

नाशकं प्रथमं तुर्यं पञ्चमं च दलं विदुः ।

ब्रह्मरन्ध्रस्थितो जीवः सुधया संप्लुतो यथा ॥१४३॥

तुष्टो गीतादिकार्याणि सप्रकर्षाणि साधयेत् ।

एषां शेषेषु पत्रेषु चक्रेष्वन्येषु च स्थितः ॥१४४॥

जीवो गीतादिसंसिद्धिं न कदाचिदवाप्नुयात् ।

etc.³; while (by concentration on) the fourth, sixth and tenth of the petals one destroys one's capacity for music etc. (140-141b)

In the 'cycle of purity'⁴ (*viśuddhi-cakra*) contemplation on eight petals from the eighth onwards leads to success in musical arts etc.⁵, while the sixteenth petal is destructive for this purpose. (141c-142b).

The tenth and the eleventh petals of the psycho-physical centre called *lalana* bestow success (in the musical arts), while its first, fourth and fifth petals are known to be detrimental. (142c-143b)

The embodied soul⁶ whose attention is focussed in the soul is fixed psychologically on one of the petals of these cycles, i.e., the psycho-physical centres in terms of attention, and according to the point of attention it gains the predisposition of character as already described in the foregoing pages. This particular verse seems to lend an indirect support to this view though if one were dogmatic, one may not yet find enough evidence for it.

3. *Gītādi* lit. means 'singing' or 'song' etc., but *gīta* or vocal music is basic to Indian music as it has already been mentioned. Moreover, 'gīta' also is used in the general sense of music, so it has been translated as such. 'S' includes instrumental music and dance as well after the concept of *saṅgīta*.
4. *Viśuddhi* lit. means purity.
5. *Gītādi* lit. *gīta* etc. implies vocal and instrumental music and dancing and may even include dance-drama
6. In other words the 'individual organism', which is sensitive to perception.

(ii) ब्रह्मग्रन्थि :

आधाराद् द्व्यङ्गुलादूर्ध्वं मेहनाद् द्व्यङ्गुलादधः ॥१४५॥

एकाङ्गुलं देहमध्यं तप्तजाम्बूनदप्रभम् ।

तत्रास्तेऽग्निशिखा तन्वी चक्रात्तस्मान्नवाङ्गुले ॥१४६॥

aperture of the upper cerebrum⁷, being immersed in ambrosia⁸, finds fulfilment⁹ and should therefore cultivate the musical arts¹⁰ with great excellence. (143c-144b)

The embodied soul¹¹ cannot in any way accomplish anything (worthwhile) in the (field of) musical arts by concentrating¹² on any other petals or psycho-physical centres. (144c-145b)

(ii) *Brahma-granthi* : 145c-148

Two finger-length above the base¹ and two finger-breadth below the genitals² in the space of one finger-breadth is the centre of the body, shining like molten³ gold. (145c-146b)

There is located a slender flame of fire at a distance of nine fingers from that centre⁴, and it is there that the life-

7. The *brahma-randhra* of the text.
8. The ambrosia of immortality, the timeless consciousness.
9. The person concerned realises the goal of individual existence by attaining immortality and so has nothing more to achieve in life and is thus free to devote himself to music etc.
10. This includes vocal and instrumental music and dance.
11. The individual while at the time of birth, if interested in art should devote himself to such of the petals as are conducive; that seems to be the idea.
1. The base is the foundational cycle, the *mūlādhāra-cakra*.
2. *Mehana* of the text literally means penis, but even so the word is used in the general sense of sexual organ.
3. *Tapta* literally means—heated, but the author is using a simile in order to give an idea of the abstract. The flame itself is a symbolic expression for the creative power of life.
4. It is not clear if nine fingers is the distance from the *mūlādhāra-cakra* or the centre of the body just spoken of. 'K' does not comment and 'S' offers both the alternative interpretations without a judgement. But it seems that the centre of the body should be the point of reference, for otherwise there will be no relevance for describing it.

देहस्य कन्दोऽस्त्युत्सेधायामभ्यां चतुरङ्गुलः ।

ब्रह्मग्रन्थिरिति प्रोक्तं तस्य नाम पुरातनं ॥१४७॥

तन्मध्ये नाभिचक्रं तु द्वादशारमवस्थितम् ।

लूतेव तन्तुजालस्था तत्र जीवो भ्रमत्ययम् ॥१४८॥

source of the body is found, four fingers in elevation as well as in extension. This⁵ has been called '*brahma-granthi*'⁶ by the ancients. (146c-147)

Right in its⁷ centre is situated the 'cycle of the umbilicus'⁸ (*nābhi-cakra*) with twelve spokes, and like the spider caught in (its own) net, yonder there wanders the self-conscious being.⁹ (148)

(iii) सुषुम्णा, नाड्यन्तराणि च

सुषुम्णया ब्रह्मरन्ध्रमारोहत्यवरोहति ।

जीवः प्राणसमारूढो रज्ज्वां कोह्लाटिको यथा ॥१४९॥

(iii) *Suṣuṃṇā* and other *nāḍī-s* : 149-163b

Mounted upon the vital breath¹, the self-conscious entity², through the *suṣuṃṇā* keeps on ascending to the cerebral aperture³ and descending back⁴, moving like a tight rope⁵ dancer. (149)

5. 'This' refers to the life-source of the body.
6. Literally, the knot of *Brahman*, i. e., the root of life force.
7. That is, in the centre of the *brahma-granthi*.
8. The *nābhi-cakra*, perhaps the same as *maṇipūṛaka* with the difference that it has been said to have only ten petals, whereas this one is described as having twelve spokes.
9. The self-conscious being is the *jīva*; this idea or concept is not native to European culture and therefore is foreign to English tongue; that is why it is being elucidated in different ways on different occasions.
1. A metaphor is used, the rope of a dancer is compared to *prāṇa*, as the dancer ascends by the rope; so the *jīva* ascends by *prāṇa*.
2. That is, *jīva*.
3. This is technically known as *brahma-randhra*.
4. Descending back to the base, i.e., the foundational cycle, the *mūlādhāra*.
5. This rope seems to be vertical rather than horizontal. Perhaps it has an allusion to the Indian rope trick. This simile can

सुषुम्णां परितो नाड्यः कन्दादाब्रह्मरन्ध्रतः ।
 कन्दीकृत्य स्थिताः कन्दं शाखाभिस्तन्वते तनुम् ॥१५०॥
 ताश्च श्रुतिरास्तासु मुख्याः प्रोक्ताश्चतुर्दश ।
 सुषुम्णेडा पिङ्गला च कुहूरथ सरस्वती ॥१५१॥
 गान्धारी हस्तिजिह्वा च वारुणी च यशस्विनी ।
 विश्वोदरा शङ्खिनी च ततः पूषा पयस्विनी ॥१५२॥
 अलम्बुसेति तत्राद्यास्तिस्रो मुख्यतमा मताः ।
 सुषुम्णा तिसृषु श्रेष्ठा वेण्वी मुक्तिमार्गगा ॥१५३॥
 कन्दमध्ये स्थिता तस्या इडा सव्ये ऽथ दक्षिणे ।
 पिङ्गलेडापिङ्गलयोश्चरतश्चन्द्रभास्करो ॥१५४॥
 क्रमात्कालगतेर्हेतुं सुषुम्णा कालशोषिणी ।
 सरस्वती कुहूश्वास्ते सुषुम्णायास्तु पार्श्वयोः ॥१५५॥
 इडायाः पृष्ठपूर्वस्थे गान्धारीहस्तिजिह्विके ।
 क्रमात्पूषायशस्विन्यौ पिङ्गलापृष्ठपूर्वयोः ॥१५६॥
 विश्वोदरा मध्यदेशे स्यात्कुहूहस्तिजिह्वयोः ।
 मध्ये कुहूयशस्विन्योर्वारुणी संस्थिता मता ॥१५७॥
 पूषासरस्वतीमध्यमधिशेते पयस्विनी ।
 गान्धारिकासरस्वत्योर्मध्ये वसति शङ्खिनी ॥१५८॥
 अलम्बुसा कन्दमध्ये,
 तत्रेडापिङ्गले क्रमात् ।
 सव्यदक्षिणनासाऽन्तं कुहूरामेहनं पुरः ॥१५९॥
 सरस्वत्यूर्ध्वमाजिह्वं गान्धार्याः पृष्ठतः स्थिता ।
 आवामनेत्रमासव्यपादाङ्गुष्ठं तु संस्थिता ॥१६०॥
 हस्तिजिह्वा सर्वगा तु वारुण्यथ यशस्विनी ।
 आ ऽङ्गुष्ठादक्षिणाङ्गुस्थि वेहे विश्वोदरा ऽखिले ॥१६१॥

शङ्खिनी सव्यकर्णान्तं पूषा त्वायाम्यनेत्रतः ।
 पयस्विनी तु वितता दक्षिणश्रवणावधि ॥१६२॥
 अलम्बुसा पायुमूलमवष्टम्य व्यवस्थिता ।

From the life-centre⁶ to the cerebral aperture⁷ the *nāḍī-s*⁸, surrounding the *suṣuṃṇā*⁹ and enmeshing the life-centre by their network, enlarge the body by developing their branches. (150)

These *nāḍī-s* are in a large number; but fourteen out of them are important, viz., *suṣuṃṇā*, *piṅgalā*, *iḍā*, *kuhū*, *sarasvatī*, *gāndhārī*, *hastijihvā*, *vāruṇī*, *yaśasvinī*, *viśvodarā*, *śaṅkhinī*, *pūṣā*, *payasvinī* and *alambusā*. The first three¹⁰ of these again are considered to be most significant. (151-153b)

From verse No. 151 to 159(a) the relative position of *nāḍī-s* is described.

also have an allegorical significance. The self-consciousness of the individual attains various levels of psychological being, which in ordinary people are never held steadily and therefore give rise to various emotions and sentiments in their behaviour. Through the practice of *kuṇḍalīnī-yoga* the mind is trained to concentrate on a particular psychophysical centre and thereby master a particular level of consciousness. But this again is a very delicate practice, which can be well compared with tight rope dancing, requiring a perfect balance between the opposites.

6. The life-centre is the life-source spoken of in verse No. 147 ante. It is the same as *brahma granthī*.
7. That is the *brahma randhra*.
8. *Nāḍī-s*, as already explained, are the tubular vessels. The whole body is a network of the *nāḍī-s*. But the *nāḍī-s* spoken of in this context have a special significance in the science of *yoga*.
9. *Suṣuṃṇā* is the name given to the central-most *nāḍī* that proceeds from the end of the spinal column and opens into the cerebral aperture. The dormant creative energy, when awakened in the foundational cycle, rises up along this *nāḍī*.
10. The first three are *suṣuṃṇā*, *piṅgalā* and *iḍā*. *Piṅgalā* is to the right and *iḍā* to the left of *suṣuṃṇā*. *Prāṇa* generally flows through these two.

Suṣumṇā is the supreme among these three; with Viṣṇu as its presiding deity, it leads to the pathway of liberation. It is established in the centre of the life-source¹¹ and is flanked by *idā* on the left and *piṅgalā* on the right. The vital breath moving through *idā* and *piṅgalā* is called moon¹² and the sun¹³, for they determine the movement of time¹⁴; but, *suṣumṇā* destroys¹⁵ time. (153 c-155b)

*Sarasvatī*¹⁶ and *kuṇḍ* are on the either sides of *suṣumṇā*. *Gāndhārī* and *hastijihvā* are respectively situated behind and in front of *idā*; while *pūṣā* and *yaśasvinī* are similarly¹⁷ situated with respect to *piṅgalā*. (155c-156)

Viśvodarā lies in the midst of *kuṇḍ* and *hastijihvā*, and *vāruṇī* likewise is in the midst of *kuṇḍ* and *yaśasvinī*. *Payasvinī*

The psychophysical view of genesis presented by the author, pointing out the different psychophysical centres and their relation to music ends here. An analytical study of this relationship is presented in appendix II. It may, however, be observed that Śaradātanaya, a contemporary of, but somewhat anterior to Śarāgadeva, provides us the rudiments of the hypothesis incorporating this relationship. He relates the seven tones to seven different places located in the body (cf. our comments on 8-9 of Section 3) right from the *Brahmagranthi*. These places roughly correspond to the psychophysical centres. It can, therefore, be concluded that the line of thought linking musical sound (*dhuta nāda*) to the yogic experience of *anāhata-nāda* already existed in his time.

11. That is, the *brahma-granthi* in the centre of the body.
12. *Candra* of the text.
13. *Bhaskara* of the text.
14. Just as the sun and the moon serve as the standards for time, or just as time is measured in terms of their movement, so is time measured in terms of the movement of the vital breath through *idā* and *piṅgalā* respectively; for it has been found by yogic observation that the breathing process goes on alternatively through the right or the left nostril for specific periods of time.
15. *Suṣumṇā* destroys the sense of time (*kāla*) for when the creative power is aroused in the foundational cycle and rises upto the thousand-petalled cerebral aperture (*brahma-randhra*), all duality ceases and there is only oneness in consciousness. Time is transcended in eternity.
16. Cf. Arthur Avalon (John Woodroffe): *The Serpent Power*, pp. 113 and 114 for a detailed account of this topic in terms of modern anatomy.
17. That is, *pūṣā* is located behind and *yaśasvinī* in the front of *piṅgalā*.

lies, in between *pūṣā* and *sarasvatī*, while *śāṅkhinī* exists between *gāndhārī* and *śarasvatī* and *alambusā* is in the midst of the life-centre¹⁸. (157-159a)

Now¹⁹, *idā* and *piṅgalā* (extend) upto the tips of the left and the right nostrils respectively, and *kuṇḍ* to the front of the genitals.²⁰ *Sarasvatī* extends upto the tongue, while *gāndhārī* is set by the back (of the body). *Hastijihvā* runs from the left eye to the toes²¹ of the left foot; while *vāruṇī* pervades the entire body; on the other hand, *yaśasvinī* extends from the toe²² upto the right foot; while *viśvodarā* pervades the whole body. *Śāṅkhinī* extends upto the left ear and *pūṣā* upto the right eye, while *payasvinī* is extended to the extremity of the right ear. *Alambusā* stands coiled around the root of the anus. (159b-163b)

इ उपसंहारः

नादस्य भुक्तिमुक्तिसाधकत्वम्

एवंविधे तु देहे ऽस्मिन्मलसंचयसंबृते ॥१६३॥

प्रसाधयन्ति धीमन्तो भुक्ति मुक्तिमुपायतः ।

E. Conclusion : The value of music for enjoyment (*bhukti*) and for enlightenment (*mukti*). (163c-168ab)

Such is the body, a heap of filth surrounded by impurities of all sorts; and yet intelligent people utilise it as a means for worldly enjoyment and for salvation (163c-164b)

The purport of the author seems to point out that the physical body is so full of impurities and is a breeding ground for disease and decay, yet intelligent people do not discard it on that account; the

18. The same as the life-source, called *brahmagranthi*.
19. From verse No. 159 (bcd) to 163 (ab) the extension of the respective *nāḍī-s* is described. 20. Literally, penis.
21. *Aṅguṣṭha* of the text refers to the thumb.
22. As *hastijihvā* runs from the left eye to the toe in the left foot, one might well expect in keeping with the law of symmetry in nature, that corresponding to it, *Yaśasvinī* should run from the right eye to the toe in the right foot; the present description, at any rate, sounds cryptic.

तत्र स्यात्सगुणाद्धानाद्भुक्तिर्मुक्तिस्तु निर्गुणात् ॥१६४॥
 ध्यानमेकाग्रचित्तकसाध्यं न सुकरं नृणाम् ।
 तस्मादत्र सुखोपगम्यं श्रीमन्नादमनाहतम् ॥१६५॥
 गुरूपदिष्टमार्गेण मुनयः समुपासते ।
 सोऽपि रक्तिविहीनत्वान्न मनोरञ्जको नृणाम् ॥१६६॥
 तस्मादाहतनादस्य श्रुत्यादिद्वारतोऽखिलम् ।
 गेयं वितन्वतो लोकरञ्जनं भवभञ्जनम् ॥१६७॥
 उत्पत्तिमभिधास्यामस्तथा श्रुत्यादिहेतुताम् ।

The pursuit of the manifest¹ (*saguna*) leads to worldly enjoyment and the meditation of the unmanifest² (*nirguna*) leads to salvation. (164cd).

wise do not, due to the imperfections of the body, hate it and grow indifferent to its proper upkeep and care ; on the contrary, they find in it a suitable means, not only for enjoying life in this world, but also for saving their souls in the other world as well. i.e., for gaining immortality, the final beatitude.

The author further makes it clear that Life or Divinity may be conceived either as manifest and conditioned from the individual viewpoint, i.e., delimited in time-space, or as absolute, non-dual reality from the universal point of view.

He further informs that the individual's point of view, delimited in time-space as it is, leads to worldly enjoyment. The word, 'enjoyment', i.e., *bhukti* is neutral and comprehends both pleasure and pain, delight and sorrow, all the pairs of opposites in feeling, knowing and willing; *bhukti* in fact is experience. This he calls the pursuit of the manifest, i.e., conditioned reality which implies the unmanifest, the unconditioned. Meditation of the unconditioned, the unmanifest, *Brahman* without any attributes, without any specific conditions leads to freedom, to perfection, to spiritual emancipation.

A reference may, in this context, be invited to Bhaṭṭa Nāyaka's concept of *bhoga*, explaining aesthetic experience being subjectively as well as objectively true and yet free from the limitations of individuality. Thus, in his view, the effective operation of the media lies

1. Literally, *Brahman* with attributes implying conditioned existence.
2. Literally, attributeless *Brahman* implying unconditioned

Contemplation attainable through one-pointed concentration of attention is not conveniently within the reach of people³; therefore, under the circumstances⁴, the sages take resort to the easier means of worshipping the unmanifest *nāda*⁵, by the procedure laid down by the preceptors. Even that, being devoid of emotional colour⁶, does not interest the (common) people. (165-166)

in their efficiency to liberate the subjective self well as the object presented from the limitations of personality. From this point of view music being an auditory art, has greater advantages than other art media. Music is truly a universal language and therefore is capable of being used as a medium not only of aesthetic experience but also of spiritual experience. Indeed, music has been used as a powerful instrument for spiritual and religious awakening, specially in India. The author is stressing the point (as also in the next verse) that even though all human endeavour may culminate in the awakening of the unmanifest (*anahata*) *nāda* within, it can best be achieved through the pursuit of the manifest (*ahata*) *nāda*, i.e., through the cultivation of musical arts which cater to the individual, the social and the spiritual good of humanity at the material and the spiritual levels at the same time.

Now, it has been stated in the previous verse that devotion to the manifestation of deity or the manifest deity leads to worldly experience; while, one-pointed attention fixed upon the unmanifest, the attributeless, unconditioned *Brahman* leads to final emancipation. With regard to worldly experience as well, the goal ultimately is to rise above need for further experience and be free from limitations of every sort. The intelligent people as it has been said, make use of the body as a means of gaining experience as well as salvation. Experiencing the sense objects and their pursuit is open to all and is also within the reach of almost all the human beings, but salvation is attained, as far as our text is concerned, by contemplating the formless, the limitless reality; and that is not approachable by all, even though that is the accepted goal of all human existence. It is not possible for everybody to meditate upon the attributeless *Brahman*, because it requires one-pointed concentration of mind to be held without the aid of a visible object. It requires a code of self-discipline without any external stimulus or any other source of inspiration.

3. Ordinary people are meant, i.e., the average human being.
4. Since the direct approach is beyond the reach of an average human being, in such a case.
5. *Nāda* is primordial sound.

Now, therefore, we shall describe the creative process⁷ of the manifest sound, which expounds through (the concept of) *sruti* etc.⁸, the entire subject matter⁹ of music which is the means of peoples' amusement as well as of attaining

Considering these difficulties, the sages have discovered a technique of attaining liberation through the meditation of the unmanifest *nāda*, i. e., the primordial sound which is heard inside the head if carefully listened to with an unburdened mind. This sound is produced without any content of matter, i. e., without any friction; it is natural and spontaneous and that is why it is called *anahata* (unstruck).

But even this is found to be of little interest by common people because this sound is pure and untinged by emotional colour and therefore uninteresting to them. That is precisely why music becomes more useful and a treatise on the science of music necessary, so that people can easily cultivate both the ends of life, viz., experience of the world and salvation from its limitations through a pleasant and a convenient means like music which is universally approved and considered attractive.

In the preceding verse (166) the author has elucidated the insurmountable difficulties involved in approaching the formless absolute reality by one-pointed concentration of attention; and also in worshipping the unmanifest *nāda* by the technique of *nādānusandhāna*. Therefore, the utility of music as a mass-entertainer of the people and as a means of salvation approachable by the common folks without effort is brought out by the author as the prominent characteristic feature of the manifest sound, i. e., *ahata nāda*; it serves as a means of enjoyment in this world and of liberation from the limitations of worldly existence which is burdened with limitations of personality and the interplay of the opposites. In short, that is how the author introduces the subject proper and justifies his attempt at expounding the science of music.

Furthermore, the manner of his exposition, he assures his readers at the very outset, is to be such as to include the elucidation of such

7. The word *utpatti* of the text generally means creation, it does not mean production. It does not necessarily involve personal will.
8. Etc. refers to other important concepts such as *jāti*, *tāna*, *kūṭāṭāna*, *svara*, *mūrcchāna*, *grāma* and so on.
9. The word *gyam* of the text literally means all that is worthy of being sung, but it comprehends all music by implication, as is obvious from the context.

freedom from the limitations of existence¹⁰, and also we shall investigate into its¹¹ being the origin of *sruti* etc. (167-168b).

abstruse topics as *sruti*, *jāti*, *grāma*, *svara*, etc., comprehending the very beginnings of the perception of *sruti* and so on. So, henceforth we are to concern ourselves with *sāṅgīta-śāstra*, i. e., the science of musical arts.

10. The word existence has been used here in the sense of 'worldly life', i. e., everyday existence of an average human being which is limited by innumerable factors of environment and complicated by the interplay of the opposites, as compared to the life of full comprehension, of unlimited freedom and tranquillity.
11. 'Its' refers to manifest sound.

अथ तृतीयं नादस्थानश्रुतिस्वरजातिकुल-
दैवतर्षिच्छन्दोरसप्रकरणम्

क. नादः

(i) नादब्रह्म, तस्योपासना च

चेतन्यं सर्वभूतानां विवृत्तं जगदात्मना ।

नादब्रह्म तदानन्दमद्वितीयमुपास्महे ॥१॥

नादोपासनया देवा ब्रह्मविष्णुमहेश्वराः ।

भवन्त्युपासिता नूनं यस्मादेते तदात्मकाः ॥२॥

Section 3

Nāda, Śruti and Svara

A. Nāda

(i) Nāda-brahman and its worship (upāsana) : (1-2)

We¹ worship Nāda-brahman, that incomparable² bliss which is immanent³ in all the creatures as intelligence and

The benedictory verse is addressed appropriately to Nāda-brahman. The author, having described the genesis and the structure of human embodiment, which is the instrument of voice production, now turns to give a detailed treatment of voice, its constituent elements and other

1. The use of plural is significant. 'We' includes the author and the readers, and the construction is suggestive of the expression, 'let us worship' Nāda-brahman.
2. The bliss which is one without the second, which is incomparable, absolute, i. e., not relative. 'K' takes 'advaityam' as directly qualifying Nāda-brahman.
3. Caitanyam sarvabhūtānām literally means the sentience in all the creatures. It has already been explained that Nāda-brahman refers to the undifferentiated state of manifestation and as such it is all-pervading, without any limitations of individuation. Caitanya is the essence of 'being' without implying any opposite. Sentience, for example, implies inert matter as non-sentience. It is in this light that Caitanya has been translated as intelligence. Caitanya is the life-essence inherent in all the creatures.

is manifest⁴ in the phenomenon of this universe. (1)

Indeed, through the worship of nāda⁵ are worshipped gods (like) Brahmā, Viṣṇu and Śiva, since essentially they are one⁶ with it⁷. (2)

related matters; in the words of 'K', having dealt with the producer, the author now proposes to deal with the product.

We have already come across the concepts of nāda (I.1.1 & I.2. 1-3 ante) and Brahman (I.2 4-5), and here we are confronted with the concept of Nāda brahman. The commentators explain it grammatically as 'nāda eva Brahman', i. e., nāda is itself Brahman, or it may also be interpreted as 'nāda is Brahman-like'. If nāda is taken as an adjective to Brahman, then it will qualify the word Brahman, in which sense 'K' interprets nāda as an object of superimposition of Brahman which takes place due to the common character of both, viz, sentience. How is it that nāda is taken to be sentient? 'K' would say, as he actually does, that nāda is the object to which the sentience of Brahman is lent by superimposition. But, the grammatical approach is likely to be misleading; for, though nāda and Brahman are two words representing two different concepts, the word 'Nāda-brahman' is a compound word representing a single concept, viz., Brahman manifest as nāda. Thus 'nāda eva Brahman' may be understood in this light.

The commentators have offered a double interpretation, i. e., from the point of view of Brahman and nāda. But obviously such an endeavour does not seem to be necessary.

4. As intelligence and bliss, Nāda-brahman is immanent in all the beings. This immanence indicates the state of non-differentiation, which is manifest in the differentiated consciousness as the universe in the relationship of the seer and the seen, the subject and the object. Moreover, nāda as the primordial sound having space or ether as its base is the subtlest of all the elements and precedes them in the order of manifestation. Thus Nāda-brahman is the cause of the manifest universe. 'K' rightly points out that nāda is the source of śruti-s, letters and words, etc., on which is based the conduct of worldly affairs. The world and the events taking place in it are perceived in the consciousness as name and form only; there is no wonder therefore, if it (nāda) is credited, erroneously though in the ultimate analysis to be the very substratum of the manifest universe. But, such an interpretation becomes unnecessary if Nāda-brahman is taken to be a single concept and is not split into nāda and Brahman.
5. Nāda implies Nāda-brahman in this context.
6. The word 'tadātmakṇī' of the text literally would mean that gods Brahmā, Viṣṇu and Śiva have nāda as their essence.
7. 'It' implies nāda.

'K' brings out the purport as under : "nāda, which is synonymous with *parā vāk*, being the energy of *Brahman*, is inseparably close to it and therefore propitiation of *nāda* leads to the attainment of *Brahman* as one desirous of obtaining the lustre of a jewel attains the jewel along with it." The main burden of his comments is shared by two of his considerations, viz, his interpretation from the non-dualistic Vedantic point of view and his anxiety to show that devotion to *nāda* can also lead to the spiritual emancipation of the soul, i.e., the pursuit of music not only has economic and aesthetic value but also spiritual value, viz, *mokṣa*, the highest endeavour (*puruṣārtha*) of mankind; the argument being that scientific knowledge of *brūti* etc. leading to the understanding of the phenomenon of music, bestows the insight necessary for the attainment of the absolute.

Incidentally, *nāda* may be differentiated from sound. The concept of sound is purely objective, but *nāda* is not merely an object of the sense of hearing. The concept of *nāda* refers to the perception in which the subject and the object is not differentiated. In other words, *Nāda-brahman* implies the undifferentiated state of manifestation, which cannot be translated into the terms of the differentiated consciousness.

This point of view can also be approached in a different way. Names generally are considered to refer to objects of perception perceived by or perceivable by a subject — thus implying a subject-object relationship. But the referend of names may not be an object, for according to some, what we perceive is the modifications in our consciousness; we have no access to the objects except through the thought-forms of the mind. Thus names ultimately refer to forms of consciousness and therefore every word implies in its meaning not only the form perceived by the senses but also the substance which finally is consciousness. Thus the word *nāda* also implies consciousness, for otherwise it cannot be meaningful. Accordingly, the function of the word is to awaken a particular form in the consciousness and *Nāda-brahman* signifies undifferentiated consciousness.

Worship is an act of devotion, and the incomparable bliss of *nāda* is the ultimate source of all such inspiration. The gods *Brahmā*, *Viṣṇu*

and *Śiva* in the puranic mythology represent the three aspects of the manifestation of *Brahman* into the phenomenon of the universe, viz., creation, preservation and destruction; the three being the part and parcel of a single movement, called *Śakti* or the energy or the creative power of *Brahman*. This energy is also called *nāda* or *śabda*, i.e., the Word, or the *parā vāk* as 'K' puts it. In the first stage of manifestation the energy involved in *Brahman* evolves into undifferentiated consciousness which is called *Nāda-brahman* in our text and accordingly the three gods named above are the three aspects in which the energy separates in the manifestation. *Nāda-brahman* is also known as *Śabda-brahman*.

So, essentially the gods *Brahmā*, *Viṣṇu* and *Śiva*, being the aspects of the same deity, are one with *nāda*.

(ii) देहे ध्वनेराविर्भावः

आत्मा विवक्षमाणोऽयं मनः प्रेरयते, मनः ।

देहस्थं वह्निमाहन्ति स प्रेरयति मास्तम् ॥३॥

ब्रह्मग्रन्थिस्थितः सोऽथ क्रमादूर्ध्वपथे चरन् ।

नाभिहृत्कण्ठमूर्धास्येष्वविर्भावयति ध्वनिम् ॥४॥

(ii) The process of the manifestation of sound in the human body. (3-4)

Desirous of speech the individuated being¹ impels the mind, and the mind activates the battery of power² stationed in the body, which in its turn stimulates the vital force³. The vital force stationed around the root of the navel, rising upwards⁴ gradually manifests *nāda*⁵ in the navel, the heart, the throat, the cerebrum and the cavity of the mouth as it passes through them. (3-4)

Now, the author proceeds to describe the process of voice production (i.e., the manifestation of *āhata-nāda*). Desire for self-expression is the motive power that initiates the process into action. Why there is the desire for self-expression is a metaphysical question and one can probably look for its answer to the benedictory verse; but, the author is not, at the moment, concerned with that. As far as the individual, which is the medium of voice production is concerned, desire for self-expression is discerned to be the cause of speech; and therefore of singing i.e., music and even dance as it is included in the concept of *Saṅgīta*.

It is notable that upto now the word *nāda* was signifying unmanifest sound; but, herefrom it obviously signifies manifest sound. It has already been said that *nāda* is twofold, viz., unmanifest and manifest (cf S. R. I.2.1-3 ante). Furthermore, the word is now being defined in the context of music.

1. The word *ātman* is difficult to translate into English due to the various shades of meaning attached to it in the different schools of Indian philosophy and cultural strata of society. In the present context the word *ātman* is used as a diminutive for *jīvātman*, i.e., individuated being or differentiated consciousness.
2. *Vahni* of the text literally means fire, but that is figurative in the present context.
3. *Prāṇa* is translated as vital force.
4. The region below the navel pertains to *anāhata-nāda*, i.e., the unmanifest sound (cf 'S' on I 3-6).
5. Now, since the concept of *nāda* has been clearly explained, it will be misleading to translate it as sound.

(iii) पञ्चविधो नादः

नादोऽतिसूक्ष्मः सूक्ष्मश्च पुष्टोऽपुष्टश्च कृत्रिमः ।

इति पञ्चाभिधा धत्ते पञ्चस्थानस्थितः क्रमात् ॥५॥

(iii) Fivefold *nāda* (5)

Stationed in these five places, *nāda* takes on five different names as associated with them respectively, viz., extremely subtle¹, subtle², loud³, not-so-loud⁴ and artificial⁵. (5)

'S' quotes Mataṅga who gives slightly a different set of nomenclature, viz., subtle, very subtle, manifest, unmanifest and artificial. It is significant that our author has reversed the order of the first two; and the reason is not far to seek. Mataṅga says that the *nāda* called subtle resides in the cave (i.e., the navel), very subtle in the heart, manifest in the throat, unmanifest in the the cerebrum and artificial in the mouth. It is not clear why Mataṅga should locate the very-subtle *nāda* in the heart; for the natural order of manifestation upto the throat is such that the lower the place the less manifest the *nāda* must be. The progress should be from the subtlest to the gross. Accordingly our author seems to have represented the correct notion (cf. S. Raj. II. 1.1.17 which follows S R).

'S' would like us to follow the order indicated by Mataṅga, but he does not assign any reasons for that; neither he seems to perceive any controversy or a difference of opinion between the two authors. It may therefore be inferred that, he takes the difference of the order in question as caused by the poetic convenience and not worthy of any serious attention. That is why he innocently suggests Mataṅga's order to be the true one.

Incidentally, cerebrum is the highest point of *nāda*-manifestation; and just as it (*nāda*) is very subtle at the lowest point; so also it is difficult of perception at the highest point, being at the other extremity of the producing instrument; that is why it is characterised as 'not-so-loud' or unmanifest.

1. *Atisūkṣma* of the text.
2. *Sūkṣma* of the text.
3. *Puṣṭa* of the text is suggestive of strength, in other words that which has gained in volume.
4. *Apuṣṭa* of the text.
5. *Kṛtrima* of the text. It is so named because sound, after being produced through the vocal chords, is modified in the mouth by the tongue, the teeth, the lips, etc., and thereby loses its natural texture.

(iv) नादशब्दस्य निरुक्तिः

नकारं प्राणनामानं दकारमनलं विदुः ।

जातः प्राणाग्निसंयोगात्तेन नादोऽभिधीयते ॥६॥

(iv) The derivation of *nāda*

It is understood¹ that the syllable² *na* (of *nāda*) represents the vital force and *da*³ represents fire; thus being produced⁴ by the interaction⁵ of the vital force and fire it is called *nāda*. (6)

This verse gives the derivation of the word *nāda*. In Sanskrit two types of derivations are offered, viz. (i) grammatical (called *vyutpatti* and (ii) what may be called in English 'semantic', i. e., *nirukti*; and here what we are offered is a semantic derivation, which is partly related to the tantric system. 'K' points out that according to the science of *tantra*, every seed-syllable (*bijakṣara*) of a *mantra* has a presiding deity, and in that context the letters *n* and *d* refer to *Prāṇa* and *Agni*, i. e., the vital force and fire. The word *nāda* is derived grammatically by 'S' as that which is produced by the consonants *n* and *d* put together.

Thus, the word *nāda* is significant, both grammatically and semantically and is indicative of signifying the consequence of the interaction of vital force and fire, which is the 'consciousness of sound'.

Mataṅga derives the word *nāda* from the root *nad* 'to sound' in addition to the semantic derivation given by our author who has preferred to give the latter alone as it explains the process of voice production.

1. If literally translated, it would read, "(they) knew", 'they' being implied in the number and the person of the verbal form used. They refer, as perceived by 'K', to tantric experts.
2. Literally, "the letter *n* and the letter *d*."
3. The idea of representation is not explicit in the text but is definitely implied in the context.
4. Produced as a consequence of the union of the vital-force and fire.
5. Literally it would read as 'union', but the union is an action.

(v) गीतव्यवहारे त्रिधा नादः

व्यवहारे त्वसौ त्रेधा हृदि मन्द्रोऽभिधीयते ।

कण्ठे मध्यो मूर्ध्नि तारो द्विगुणश्चोत्तरोत्तरः ॥७॥

(v) The threefold *nāda* in music.

However, in actual practice¹ it² is threefold, called *mandra*³ in the heart, *madhya*⁴ in the throat, and *tāra*⁵ in the head and is successively double (in pitch). (7)

The author has already spoken of a fivefold classification of *nāda* based on the location spots in the body in verse 3 (ante). Here, he opens the verse with 'however', indicating that the threefold classification of *nāda* into the 'low', the 'medium' and the 'high' is presented notwithstanding the earlier classification, as this one is devised from a purely practical point of view. As the commentators have pointed out, the practical point of view relates to the practice of singing etc., i. e., to musical performance; and therefore, the function of this classification is to be clearly distinguished from the earlier one, which is more or less of a theoretical value.

The same *nāda*, when produced from the heart is called *mandra*, when produced from the throat is called *madhya* and when produced through the head, i. e., the cerebrum, it is known as *tāra*, and each successive *nāda* is double (in pitch) than the preceding one, i. e., the three aspects stand in the ratio of 1:2:4. 'K' gives another significant interpretation for this idea. According to him, if the effort involved in the articulation of *ṣaḍja* and the other notes of the lower register (*mandra*) is taken as the standard unit measure, then the effort involved in producing *ṣaḍja* and the other notes of the middle register is twice as much and the effort required for producing the same notes of the high register (*tāra*) is double than that (i. e., that of the middle). That is how *madhya* is double the *mandra* and *tāra* is double the *madhya*.

1. *Vyavahāra* is conduct, i. e., actual practice; in this context 'gīta', i. e., the tonal aspect of music.
2. 'It' refers to *nāda*.
3. *Mandra* literally means 'low'.
4. *Madhya* literally means 'medium' in this context.
5. *Tāra* literally means 'high'.

ख. श्रुतिः

(i) श्रुतिः, तत्सङ्ख्या च

तस्य द्वाविंशतिर्भेदाः श्रवणाच्छ्रुतयो मताः ।

हृद्यूर्ध्वनाडीसंलग्ना नाड्यो द्वाविंशतिर्मताः ॥८॥

तिरश्च्यस्तासु तावत्यः श्रुतयो मारुताहतेः ।

उच्चोच्चतरतायुक्ताः प्रभवन्त्युत्तरोत्तरम् ॥९॥

एवं कण्ठे तथा शीर्षे श्रुतिर्द्वाविंशतिर्मता ।

B. Śruti

(i) Śruti and its number (8-10b)

*Nāda*¹ is differentiated into twentytwo grades which, because of their audibility², are known as *śruti-s*³. (8ab)

It is believed⁴ that, closely associated with the two upward *nādi-s*⁵ in the (heart) there are twentytwo *nādi-s* placed

By this time it would have been clear that the term *nāda* is increasingly being used in a specific sense. Whereas *nāda* signifies in the general sense, the consciousness of sound, here its meaning has been restricted to musical sound. In this sense, it has been said in the previous verse, that *nāda* is of three types, with reference to the place of production in the body or (the pitch), so to say. Now, such a *nāda* is further distinguished into twentytwo varieties, produced by twentytwo upward *nādi-s* each of the heart, the throat and the cerebrum.

What is important to note is that twentytwo variations, grades or intervals have been recognised in the (scale). The twentytwo *nādi-s*,

1. In this context the author is dealing with the manifest (*ahata*) *nāda*, and therefore *nāda* means musical sound.
2. The word 'śravaṇāt' of the text literally means 'on account of hearing'.
3. *Śruti-s* literally could be rendered as 'audibles'.
4. The word '*mataḥ*' of the text has been literally translated here as it seems to have been so used. But sometimes it is not necessarily so used, it is otherwise used in the sense of "it is known" or "it is considered."
5. 'K' interprets the word *nādi* of the text as indicative of dual number and accordingly names them as *īḍa* and *pingalā*, but 'S' seems to take it as singular and accordingly identifies it with *suṣumṇā*.

obliquely⁶, and twentytwo⁷ *śruti-s* successively higher and higher in pitch, are produced by the force of wind acting upon them. (8c-9)

Similarly, twentytwo *śruti-s* are discerned in the throat⁸ as well as in the cerebrum⁹. (10ab)

however, have not as yet been identified in terms of modern physiology or anatomy. Nevertheless, the concept of relating twentytwo *śruti-s* to twentytwo *nāḍi-s* is not confined to Śarṅgadeva but is shared by at least one more author known to us, viz., Śaradātanaya who is a contemporary of the author. He not only relates twentytwo *śruti-s* with twentytwo *nāḍi-s* branching off from the central *nāḍi*, viz., *suṣumṇā* in the region of the heart but he further relates them to the seven places of pronouncing letters of alphabet, viz., the throat, palate, lips, cerebrum and teeth either independently or from more than one place put together. Thus he goes on to relate the seven tones to these places of pronunciation assigning to them the number of *nāḍi-s* equal to the number of their *śruti-s*. The whole theory is illustrated in the following chart:

svāra-s and *varṇa-sthāna-s*

| S. No | Place of pronunciation | No. of <i>nāḍi-s</i> attached | Name of the note produced | No. of <i>śruti-s</i> | Remarks |
|-------|--|-------------------------------|---------------------------|-----------------------|--|
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | Throat | 4 | Ṣaḍja | 4 | Compare <i>Saṅgītamakaraṇḍa</i> (1.11-12) for the relationship of col. 2 and 4 |
| 2 | Root of the palate | 3 | Ṛṣabha | 3 | |
| 3 | Lips | 2 | Gandhāra | 2 | |
| 4 | The centre of cerebrum | 4 | Madhyama | 4 | Being produced from five places it is called <i>pañcama</i> |
| 5 | Teeth, throat, cerebrum, palate & lips | 4 | Pañcama | 4 | |
| 6 | Throat & palate | 3 | Dhāvata | 3 | |
| 7 | Throat & lips | 2 | Niṣāda | 2 | Total no of <i>śruti-s</i> 22 |

(Chart—1)

- 'K. R.' translates it as 'crosswise'. Literally it also means horizontal.
- The number twentytwo is not repeated here in the text, but the expression 'of the same number' is used.
- The throat and the cerebrum are the other two places from which *nāda* finds voice; along with the heart these three refer to the three registers.

In other words, he relates not only the *śruti-s* but also the *svāra-s* to the *nāḍi-s*. And alternatively, he also presents another theory according to which the seven *svāra-s* (notes) are related to the seven supportive tissues (*dhātu-s*) in the body, viz., serum, blood, flesh, fat, bone, marrow and semen. The theory seems to rest on the contention that the internal heat (*uṣma*) of the tissues in conjunction with *prāṇa* gives rise to the seven tones through different *dhamanī-s* (arteries) that are associated to the particular tissues in the same number as that of the *śruti-s* of the particular tones which they produce. Thus the number of *dhamanī-s* associated with the production of the seven notes through the seven supportive tissues is also twentytwo.

In this way both the theories seek to present physiological evidence to support the view that the total number of *śruti-s* is 22 only (cf. *Bhāvaprakāśanam*, pp. 184-188). The following detail of the topics dealt with gives an idea of the subject matter :

"The creation of *nāda* and the letters of alphabet—the places of pronouncing the letters—22 *nāḍi-s* as related to these places—the seriatim production of *nāda*, *śruti* and *svāra*—the rise of seven notes from seven places—the *svāra-s* and the supporting tissues 22 *dhamanī-s* etc." The following chart shows the relation of *svāra-s* and the supportive tissues according to the above theory.

Svāra-s as related to *dhātu-s* (supportive tissues)

| S. No. | Dhātu | Svāra | No. of supporting <i>dhamanī-s</i> | Location of the substratum |
|--------|--------|----------|------------------------------------|-------------------------------------|
| 1 | Semen | Ṣaḍja | 4 | Brahma-granthi (centre of the body) |
| 2 | Marrow | Ṛṣabha | 3 | Navel |
| 3 | Bone | Gandhāra | 2 | Heart |
| 4 | Fat | Madhyama | 4 | Throat |
| 5 | Flesh | Pañcama | 4 | Root of palate |
| 6 | Blood | Dhāvata | 3 | Cerebrum |
| 7 | Skin | Niṣāda | 2 | Sahasrāra |

(Chart—2)

It may be kept in mind that these tones are related to the heat (resident fire) of the above tissues and not the tissues themselves. The related *dhamanī-s* are supposed to feed the tissues concerned and the tones produced are the modifications of *nāda* that is produced primarily in the *suṣumṇā*.

Thus it will be seen that the relation of 22 *śruti-s* and the seven tones with the *nāḍi-s* is not without a scientific basis. However, the

fundamental basis of this theory is to be found in the intimate knowledge of the *kuṇḍalīnī-yoga* and *tantra*. But it is clear that the *āhata-nāda* (the manifest sound) is conceived here to be a modification of the *nāda* residing in the central-most *nāḍī*, viz., *suṣūmṇā* and is manifested through the *nāḍī-s* that branch off from it.

This perspective affords us a greater understanding of the relevancy of the entire spectrum of subjects dealt with in the Section entitled—the Human Embodiment.

The word *śruti* is derived from the root 'śru', to hear; thus *śruti* is that which is 'heard'. In other words, *śruti* is the name given to that range of sound which is audible. Since twentytwo such sounds are perceived in each of the three registers, it is also implied that an audible sound in order to be called a *śruti* should also be capable of individual perception and recognition, and therefore of being reproduced. 'K' opines that audibility is common to tones as well as *śruti-s*; so, that is not sufficient to characterise it properly. He, therefore, suggests that when the sound breaks on the first stroke, it is free from resonance in the first instant. Thus according to 'K' *śruti* is that audible sound which is free from resonance. The point that he seems to be making is that *śruti* is essentially devoid of tonal colour. This view is obviously based on the distinction drawn between *śruti* and *svāra* by the author (vide 24c-25b) while defining the latter. However, this characteristic of *śruti* that categorically distinguishes it from *svāra* was first pointed out by Abhinavagupta who defines *svāra* as, "the sound that is (produced) by the influence of the sound arising as a result of striking (a vibrating string) at a *śruti-sthāna* (the position of a *śruti*) and is (thus) essentially resonating, sweet and creamy" (*Vayam tu śruti-sthānābhīghātaprabhavaśabdaprabhāvito anuraṇāntm snigdhaṁ madhuraṁ śabda eva svāra iti vakyāmah.* (cf. Abh. Bh, on N. S., G. O. S. IV, p. 11).

In this definition it be observed that when *śruti* is referred to as having a *sthāna* (a particular position in the scale) it implies a certain pitch relation and the word no longer is used in its literal sense of audible sound. This sound which is produced by striking a vibrating string at a given point is not resonating in the first instant, but is capable of creating resonance in that string. That the word *śruti* had a reference to pitch relation from very early times, is indicated by an aphorism of Pāṇini (500 B. C.), "*Ekaśruti dūrāt sambuddhau*" (1.2.33), i. e., a call from a distance (in vocative) is (perceived as) *ekaśruti*. The word *ekaśruti* is defined by Patañjali as the non-distinction of the tone-triad (*traiśvārya*, i. e., *udātta*, *anudātta* and *svarita*) in perception. Thus, Abhinavagupta made the distinction between the general and the particular meaning of the *śruti* both at the conceptual and the perceptual levels. (Conceptually

the *śruti-s* are twentytwo as twentytwo definite positions in the scale of seven notes, but perceptually the *śruti-s* are non-resonant primary manifestations of musical sound, antecedent to the production of tones. It is this sort of thinking that is abridged by Śārṅgadeva in his definition of *svāra* referred to above, which Kallinātha has expounded.

In this context it is worthwhile to point out that in the history of the concept of *śruti*, we come across discussions regarding the number of *śruti-s* and one of the views is that the number of *śruti-s* is infinite, and in that case audibility seems to be the only characteristic of *śruti*. But if the number is limited then other characteristics are relevant.

'S' quotes Mātāṅga who has discussed this topic at some length. He derives the word *śruti*, grammatically from the root 'śru' to hear, and speaks of *śruti* as the audible sound, and therefore essentially one.

He (Mātāṅga) further quotes Viśvāvasu who declares the same one *śruti* to be twofold, i. e., the one pertaining to the normal tones of the scale and the other pertaining to the intervening tones (i. e., *antara-gāndhāra* and *kakālī-niṣāda*, to be explained later). However, this distinction is not of any value, what is notable is that he also defines *śruti* as the audible sound. He (Mātāṅga) also mentions the view according to which *śruti* is considered to be threefold and he describes two such schools, viz., those who base their argument on the three places of voice, i. e., the three registers, and those who base their view on the threefold perceptual insensitivity (*indriyavaiḡuṇya*). Such insensitivity is explained in these terms: (a) that which is presented as the natural response of the organism to the situation; (b) that which is caused by the emotional imbalance of over-activity or dullness; and (c) that which is consequent upon taking improper food and drink.

Then he also points out the view according to which *śruti* is fourfold, and this view is based on the fourfold condition of the body, viz., the respective predominance of wind, bile and phlegm and the combined derangement of the three (cf. S. R. I. 2.71c ante). However, as 'K' points out, these varieties are spoken of with reference to the over-all quality of voice which includes timbre, volume and pitch-range. This classification is primarily applicable to the production of voice in the human organism.

The only classification based on the pitch of the notes, divides them into three categories (i) having 4 *śruti*-interval, (ii) with 3 *śruti*-interval and (iii) with 2 *śruti*-interval. As we shall have the occasion to see later, there are three notes in the first category comprising 12 *śruti-s*, two in the second comprising 6 *śruti-s* and two in the third comprising 4 *śruti-s*, making 22 in all in the scale of seven notes known

(ii) चतुःसारणा

व्यक्तये कुर्महे तासां वीणाद्वन्द्वे निदर्शनम् ॥१०॥

द्वे वीण्ये सदृशौ कार्ये यथा नादः समो भवेत् ।

तयोर्द्वाविंशतिस्तन्त्र्यः प्रत्येकं, तामु चादिमा ॥११॥

(ii) The fourfold string movement (*catuḥ-sāraṇā*): 10c-22

For their clear¹ exposition we are to demonstrate them on a pair of *vīṇā-s*. Two *vīṇā-s* with twentytwo strings each, may be produced similar² in every respect to sound³ alike.

as *śadja-grāma*. Thus, there are 9 *śruti-s* in this view which is attributed to the flutists who are required to provide appropriate knobs for producing all the notes by partial and full openings. Matāṅga also quotes Bharata to support the threefold classification of notes on which is based the ninefold *śruti*. The concept of 9 *śruti-s* is related to the triad of notes and not the heptad. Then he puts forward some other views along with Kōhala who says, "some maintain twentytwo as the number of *śruti-s*, while others, (in view of three registers) consider it to be sixtysix, but others think it to be infinite."

We have already dealt with the view of the infinity of *śruti-s* as untenable. The number sixtysix is admitted on the ground that there is a difference in the pitch of the notes of the three registers; and therefore their *śruti-s* should also be considered to be different. However, as 'S' argues, this is not a fundamental or categorical difference as the notes of the three registers as well as their *śruti-s* are recognised to be the same. Thus the view holding twentytwo as the number of *śruti-s* hold good and Śāringadeva seems to have settled this question once for all, since after him this number is taken for granted.

To sum up, "*śruti* is that audible sound which at the conceptual level is capable of being individually perceived, recognised and reproduced and at the perceptual level is free from resonance; such *śruti-s* are twentytwo in number, and are the same in all the three registers." This is the twofold technical meaning of the word *śruti* apart from which, the word simply means—"that which is heard", i.e., 'the audible'. The Sanskrit word *śruti* is rendered into English by some as 'microtone'.

1. The minute *śruti* intervals are not easily discernible without being systematically demonstrated; and since it is difficult to do so vocally, *vīṇā-s* are pressed into service.
2. Similar in every detail of manufacture, and the test of their similarity lies in the resulting identity of the sound produced by them.

कार्या मन्द्रतमध्वाना द्वितीयोच्चध्वनिमंनाक् ।
 स्यान्निरन्तरता भृत्योर्मध्ये ध्वन्यन्तराश्रुतेः ॥१२॥
 अधराधरतीत्रास्तास्तज्जो नादः श्रुतिर्मतः ।
 वीणाद्वये स्वराः स्थाप्यास्तत्र षड्जश्रुतुःश्रुतिः ॥१३॥
 स्थाप्यस्तन्त्र्यां तुरीयायामृषभस्त्रिश्रुतिस्ततः ।
 पञ्चमीतस्तृतीयायां, गान्धारो द्विश्रुतिस्ततः ॥१४॥
 अष्टमीतो द्वितीयायां, मध्यमोऽथ चतुःश्रुतिः ।
 दशमीतश्चतुर्थ्यां स्यात्पञ्चमोऽथ चतुःश्रुतिः ॥१५॥
 चतुर्दशीतस्तुर्यायां, धंवलस्त्रिश्रुतिस्ततः ।
 अष्टादशस्तृतीयायां, निषादो द्विश्रुतिस्ततः ॥१६॥
 एकविंश्या द्वितीयायां, वीणकाऽत्र ध्रुवा भवेत् ।
 चलवीणा द्वितीया तु तस्यां तन्त्रीस्तु सारयेत् ॥१७॥
 स्वोपान्त्यतन्त्रीमानेयास्तस्यां सप्त स्वरा बुधः ।
 ध्रुववीणास्वरेभ्योऽस्यां चलायां ते स्वरास्तदा ॥१८॥
 एकश्रुत्यपकृष्टाः स्युरेवमन्याऽपि सारणा ।
 श्रुतिद्वयलयादस्यां चलवीणागती गन्ती ॥१९॥
 ध्रुववीणोपगतयो रिधयोर्विशतः क्रमात् ।
 तृतीयस्यां सारणायां विशतः सपयो रिधौ ॥२०॥
 निगमेषु चतुर्थ्यां तु विशन्ति समपाः क्रमात् ।
 श्रुतिद्वाविंशतावेवं सारणानां चतुष्टयात् ॥२१॥
 ध्रुवाश्रुतिषु लीनायामियत्ता ज्ञायते स्फुटम् ।
 अतः परं तु रक्तिघ्नं न कार्यमपकर्षणम् ॥२२॥

The first⁴ string may be so fixed as to produce the lowest⁵ possible sound, and the second one in order to sound a little

4. 'K' thinks that the string fixed so as to be the nearest in the the approach of the player is the first string.
5. Here we are concerned with musical sound and not merely with sound. Therefore, the lowest possible sound implies that the string should be stretched not only to make an audible sound but to make the sound which is the lowest and also capable of resounding. As 'S' puts it, the sound thus produced should be delightful.

bit⁶ higher than that, maintaining continuity in between the two *śruti*-s and disallowing any intervening audible sound. Thus, the strings fixed one below the other are successively of higher and higher pitch, and the sound produced by them is known as '*śruti*'⁷ (10c-13b)

To establish the notes on the two *viṇā*-s let *ṣaḍja* which is of four *śruti* - measure, be fixed on the fourth string; *ṛṣabha* of three *śruti*-measure on the third string as counted from the fifth⁸; *gāndhāra* of two *śruti*-measure on the second string from the eighth⁹; *madhyama* of four *śruti*-measure on the fourth string from the tenth¹⁰; *pañcama* also of four *śruti*-measure on the fourth string from the fourteenth¹¹; *dhaivata* of three *śruti*-measure on the third string from the eighteenth¹² and *niṣāda* of two *śruti*-measure on the second string from the twentyfirst.¹³ (13c-17a)

Let one of these two *viṇā*-s be kept invariable¹⁴ and the other one as variable¹⁵; and in the latter, one may move¹⁶ the strings. (17b-d)

In the first movement, the seven notes of the variable *viṇā*¹⁷ have to be brought over¹⁸ by the experts¹⁹ to the

6. The expression 'a little bit' is explained forthwith in the text that follows immediately, i. e. to the extent that no other sound intervenes and the continuity in hearing is maintained.
7. The twentytwo strings fixed in this manner, when plucked will sound in twentytwo *śruti*-s. This number is further to be verified and proved beyond doubt. But in the meanwhile, every sound produced by these is called *śruti*.
8. The seventh string if counted from the first.
9. The ninth " " " "
10. The thirteenth " " " "
11. The seventeenth " " " "
12. The twentieth " " " "
13. The twenty second " " " "
14. Literally, *dhrūva* means immutable, constant.
15. Literally, *cala* implies adjustability in this context.
16. The precise meaning of this term is elucidated in the next verse.
17. This expression is implicit in '*asyām*' of the text which is related to 17d above.
18. This is more or less a literal translation of *aneyaḥ* of the text, which has been preferred in order to preserve the underlying feeling that an experiment is being conducted; for otherwise the purport is that the notes have to be shifted from their original strings.

immediately preceding²⁰ strings; and thereby its notes are lowered by one *śruti* each with reference to those of the invariable *viṇā*. The remaining²¹ movements may as well be similarly carried out. (18-19b)

In the second²² movement, due to the fusion²³ of two *śruti*-s the *ga* and *ni* of the variable *viṇā* have been absorbed²⁴ by *ri* and *dha* respectively of the invariable *viṇā*. (Similarly) in the third movement *ri* and *dha* have merged into *sa* and *pa* respectively; while in the fourth movement *sa*, *ma* and *pa* have fused with *ni*, *ga* and *ma* respectively.²⁵ (19c-21b)

The concept of *śruti* and the number of *śruti*-s, i. e., twentytwo, is not based merely on subjective experience of the *nādi*-s but as clearly defined, the different *śruti*-s can be produced at will, recognised as individual entities and so demonstrated. Thus, the concept of *śruti* is objective and scientific in so far as it is demonstrable.

The procedure for this demonstration is quite simple and is said to have been attempted successfully with tangible results. This topic is dealt with in the text extending from verse no. 10c to 22 and the whole process is technically called '*ratuh-saraṇā*', which will be explained later.

However, the technique of demonstration is open to some serious objections; for example, Pt. Omkarnath Thakur points out the following difficulties in the process (cf. *Prāṇābhāratī*, pp. 64, 65 and *Saṅgītanjalī* pt. V, p. 91) :

19. The experiment has to be conducted very carefully and under expert guidance.
20. The original strings are the 4th, 7th, 9th, 17th, 20th and 22nd; and now, the notes have to be placed respectively on the 3rd, 6th, 8th, 12th, 16th and the 21st strings.
21. That is, the second, third and the fourth movements may also be carried out by lowering the pitch of the notes by one *śruti* each with reference to their standard pitch in the invariable *viṇā*, and the lowering is effected by moving to the proximate strings.
22. Literally, in 'this' with reference to the previous line.
23. *Laya* is indicative of the loss of distinction of individuality.
24. *Viśataḥ* lit enter, is the most appropriate expression whereby the note that merges is absorbed by the one with which it merges.
25. It may be borne in mind that this fusion is with reference to the invariable *viṇā*. *Sa*, *ri*, *ga*, *ma*, *pa*, *dha*, and *ni*, it may be noted, are the diminutive forms of the seven notes called *ṣaḍja*, *ṛṣabha*, *gāndhāra*, *madhyama*, *pañcama*, *dhaivata* and *niṣāda*.

Thus, the exact number²⁶ of *śruti-s* is clearly evidenced by their fusion with the twentytwo *śruti-s* of the invariable *vṛṇā* brought about by the process of fourfold string movement. The retrograde movement²⁷ may not be carried beyond this²⁸, as that would mar the beauty.²⁹ (21c-22).

- (i) Though it is possible to fix 22 strings on *vṛṇā*, yet it is difficult to do so; and it is even more difficult to establish the different notes on them by tonal consonance.
- (ii) It has been suggested that the first string should be fixed so as to produce the lowest possible sound. This is, at best, a vague direction.
- (iii) Taking it for granted that the lowest sound as suggested refers to the pitch below which sound does not produce any resonance and thus ceases to be musical, the problem yet is how to fix the second string in order to sound a little bit higher than the lowest and so on. That, he says, is to be determined by ensuring that continuity in-between the two is maintained and any intervening sound is eliminated or disallowed to intrude. This leads to the question whether it is practicable not to listen to the intervening pitch-points or musical microtones. Obviously such subtle musical sounds are discernible by trained ears. Therefore, the procedure suggested by the author does not seem to be satisfactory.

Moreover, the statement that, "the sound produced by them (the 22 strings fixed by the above procedure) is known as *śruti*", is technically unsound, for *śruti-s* that are also called microtones, are very narrow pitch-relations, perceived by trained ears with great difficulty; they cannot thus be determined so easily by fixing the strings a little bit higher successively since it does not involve a definitely measured pitch. (10c-13b)

While Pt. Omkarnath Thakur suggests his own procedure for demonstrating 22 *śruti-s* (cf. *Prāṇavābhārati*, pp. 65-66), Dr. K. C. D. Brihaspati suggests quite a different interpretation of the text which enables him to steer clear of some of the difficulties mentioned above

26. The *iyatā* of the text has the sense of numerical extent.
27. *Apakarṣa* is the lowering of the notes in pitch.
28. This refers to the fourth movement.
29. *Rakti* of the text literally means delightfulness which is beauty.

(cf. *Sahgṛhācintāmaṇi*, pp. 191, 192) the purport of which is presented as under :

- (i) The procedure of the fourfold string movement described above is a preliminary exercise to fix the strings approximately in order to establish the seven notes later on the basis of the consonance of notes without much difficulty.
- (ii) Śārāṅgadeva has adapted this procedure from Mātāṅga for the above purpose. The above contention is demonstrated to be true by the second line of the verse 13 (*Vṛṇādvāye svarāḥ śthapyaṣṭatra śaḍjaścatuḥśrutih*). He clearly states that the notes have (yet) to be established on the two strings.
- (iii) He has used the word *śruti* in its primary meaning of an audible sound, and not in the technical sense, for otherwise he ought to have named the *śruti-s* there and then thus rendering the fourfold string movement and the process of establishing the notes unnecessary.

Moreover he elsewhere points out that in keeping with the spirit of the age, Śārāṅgadeva has purposefully clothed his expression in the blanket of ambiguity. This is how the subject matter has been dealt with by the modern scholars.

The *śruti-s* when specifically grouped, manifest the seven notes of the scale. Incidentally, the Indian theory of music does not take the octave into account as a general rule. We may have the occasion to reflect upon the thinking that has been done regarding the relationship obtained between *svāra* (i. e., a note) and *śruti*. It may also be worthwhile to point out that the concept of *svāra* is not at once identical with the concept of note, though generally the term is rendered into English as 'note' or 'tone' according to the context. The essential difference that can at once be pointed out between '*svāra*' and '*note*' is that, whereas the pitch of the notes is fixed, that of *svāra-s* is not absolutely fixed, though it remains invariably the same in relation to the other of the scale. An Indian performer is free to fix his fundamental note according to his own convenience. This goes to make all the difference. Another important difference is that *svāra* can roughly be said to signify 'duration in pitch' rather than a point. This factor will be further clarified as we proceed with the text. However in English the words 'note' and 'tone' are used with some inexplicable discrimination in this translation.

For the time being, suffice it to say that, a number of *śruti-s* in successive combination go to bring a tone into being. Now, the author concerns himself with establishing the seven notes of the scale on the

strings fixed on the two *stṛiṅgā-s*. *Ṣaḍja* is to be established on the fourth *śruti* as counted from the last *śruti* of the preceding note, i. e., *niṣāda* of the lower scale; and since the first string here is taken as the lowest possible sound, *ṣaḍja* is fixed on the fourth string. Similarly *ṛṣabha* is established on the third *śruti* taking the last *śruti* of the previous note as the zero point. Thus *ṛṣabha* is fixed on the third string as counted from the fifth (i. e., the seventh string). Similarly, other tones are also established on their respective strings. (13c-17a)

Having once established the seven notes in the two *stṛiṅgā-s* at the *śruti* intervals of 4, 4+3, 7+2, 9+4, 13+4, 17+3 and 20+2, i. e., 4, 7, 9, 13, 17, 20 and 22, now the author proceeds to demonstrate the fact of these minutely perceptible intervals that go to manifest the seven standard notes, being twentytwo in number. One of the *stṛiṅgā-s* is kept invariable to serve as the unmodified standard for evaluating the modifications brought about by the string-movements. Four of such string movements go into action in this process which is technically known as 'cala-sāraṇā', i. e., the fourfold string-movement. This has been described in the text extending from verses 17 to 22.

The *stṛiṅgā* in which the fourfold string-movement takes place is *cala stṛiṅgā* (lit. movable) in the text, while the one which serves as the invariable standard is called *acala-stṛiṅgā* (lit. immovable). Both of them, it may be pointed out, have twentytwo strings and are identical in every respect. Such *stṛiṅgā-s*, however, are used here for experimental purposes only, and are not otherwise used for any performance. (17b-d)

The fourfold string-movement has already been referred to. In this verse the author elucidates the significance of the string-movement. Although the whole picture will only be clear after going through the whole process, i. e., upto the 22nd verse, it is worthwhile to understand what is meant by 'movement'.

The seven notes of the scale have been established on definite strings on the two *stṛiṅgā-s*; now, the notes of the variable *stṛiṅgā*, in the first movement, are shifted to the strings immediately preceding their respective original strings; i. e., in other words, the movement implies the lowering of the notes in pitch by one *śruti*-interval. Similarly in the second movement the notes would be lowered by two *śruti*-intervals, in the third by three *śruti*-intervals and in the fourth by four *śruti*-intervals. Consequences of this fourfold string-movements are described in the next few verses of the text.

In the first movement, however, no note-interval is proved; for, at least two *śruti-s* are required to constitute the shortest of the note-intervals; but, nevertheless, the lowering of the pitch of the notes is

noticeable, directly as well as by reference to their standard pitch preserved by the invariable *stṛiṅgā*. Thus, this arrangement of two *stṛiṅgā-s* provides for a negative as well as a positive proof with regards to the number of *śruti-s*, which is twentytwo. (18-19b)

Each string-movement implies lowering of notes (i. e., all the seven notes) by one *śruti* progressively, i. e., by one *śruti* in the first movement, two *śruti-s* in the second movement, three *śruti-s* in the third movement and four *śruti-s* in the fourth movement. But, since the fundamental note has no fixed pitch in this system, the lowering of the notes, allround as it is, does not affect the individuality of the notes as such; for, the *śruti*-intervals between the various notes remain the same. However, the impact of the string-movement in the variable *stṛiṅgā* is to be studied with reference to the standard pitch of the notes set up by the invariable *stṛiṅgā*. (This is illustrated graphically by the following chart (adopted with modifications from *Saṅgīta-Cintāmaṇi* of Dr. K. C. D. Brihaspati and Mrs. Sunitra Kumari).

The fourfold string-movement

| Serial No. of strings | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | |
|--------------------------------------|---|----|----|----|----|----|----|----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|--|
| Notes of • <i>acala-stṛiṅgā</i> | | sa | ri | ga | | ma | | pa | | dha | | ni | | | | | | | | | | | |
| 1st step in † <i>cala-stṛiṅgā</i> | | sa | ri | ga | | ma | | pa | | dha | | ni | | | | | | | | | | | |
| 2nd step in <i>cala-stṛiṅgā</i> | | sa | ri | ga | | ma | | pa | | dha | | ni | | | | | | | | | | | |
| 3rd step in <i>cala-stṛiṅgā</i> | | sa | ri | ga | | ma | | pa | | dha | | ni | | | | | | | | | | | |
| 4th step in <i>cala-stṛiṅgā</i> | | ri | ga | | ma | | pa | | dha | | ni | | | | | | | | | | | | |

(Chart 3)

• Invariable *stṛiṅgā*
† Variable *stṛiṅgā*

The effect of the fourfold string-movement on the position of notes with reference to the invariable *stṛiṅgā* and the extent to which that goes to demonstrate the number of *śruti-s* is represented briefly in the following chart:

The effect of fourfold string-movement

| No. of note-strings | 4 | 7 | 9 | 13 | 17 | 20 | 22 | No. of <i>śruti</i> -s demonstrated | Remarks |
|---|----|----|----|----|----|-----|----|-------------------------------------|--|
| The original position of notes on the scale | sa | ri | ga | ma | pa | dha | ni | | |
| 1st movement | | | | | | | | | No effect on the notes |
| 2nd movement | | ga | | | | ni | | 4 | ga and ni merge with ri and dha |
| 3rd movement | ri | | | | | dha | | +6 | ri and dha merge with sa and pa |
| 4th movement | | | ma | pa | | | sa | +12 | ma, pa and sa merge with ga, ma and ni |

(Chart 4)

Thus, it is contended that, since by this method the number of *śruti*-s that could be fixed with and that constitute the seven notes of the scale is found to be twentytwo only, it is evident that *śruti*-s are twentytwo. The purpose of this demonstration is to verify and thereby to confirm the number of *śruti*-s, i. e., twentytwo. The validity of this process offering rough evidence to prove the number of the *śruti*-s lies in the fact that in the second movement the notes *ga* and *ni* are fused with, i. e., sound similar to, the notes *ri* and *dha*, thereby proving that the note-intervals *ri-ga* and *dha-ni* are of two *śruti*-s each. Similarly, the *śruti*-s of other notes are also verified as shown in the above chart, establishing in consequence the number of *śruti*-s as twentytwo.

The merger of *ga* and *ni* with *ri* and *dha* in the second movement and of *ri* and *dha* with *sa* and *pa* in the third is quite intelligible. But in the fourth movement *sa*, *ma* and *pa* fuse with *ni*, *ga* and *ma*: the merger of *ma* and *pa* with *ga* and *ma* is also understandable; but the question is how does *sa* merge with *ni*, since the string for *sa* was tuned to produce the lowest possible tone that could be audible? The question as posed by 'K' is quite natural and if the formula for the string-movement is strictly followed, the fourth movement cannot be practically demonstrated on a *vīṇā* of twentytwo strings; firstly, because there is no other string preceding the first one on which *sa* is placed in the third movement; and secondly, there is no lower tone possible. 'K' meets this objection by suggesting that if the lower octave (used for the *saptakā*)

here is repeated, the string for *ni* can be conceived as the one preceding the string for *sa*; or alternatively, the *sa* can be conceived to have merged with the *ni* of a still lower octave. However, the difficulty is not with the technique of the demonstration and only points out the limitation of the equipment.

Kumbha of the 15th century who has elaborated upon Śārṅgadeva informs us about the functions of the fourfold string-movement as under:

"The delimitation of the number of *śruti*-s, gradation of pitch with reference to tones and the comprehension of *kākaṭi* etc. (constitute) the functions of the string-movements." (S. Raj. II. 1.1.115). (19c-21b)

The net result of the fourfold string-movement is that the number of *śruti*-s has been verified and demonstrated to be twentytwo only. 'K' raises a hypothetical question which is adequately answered by Śārṅgadeva in verse 22. One can well say, "If 22 *śruti*-s could be obtained by four string-movements, why not carry out the fifth movement and fix the number of *śruti*-s at twenty-nine?" It is as if in anticipation of such a question that, according to 'K', the author found it necessary to forbid any further movement; for that would defile the aesthetic value of notes. Dwelling on this theme, 'K' further explains that a fifth string-movement cannot possibly be conceived, for the note-intervals are finite and are constituted by different numbers of *śruti*-s such as 2, 3 and 4, making them resonant, delightful and pleasing tones. Thus, the three categories of notes with 2, 3 and 4 *śruti*-s each have been fused in three different movements leaving no scope for any further lowering of pitch. 'S' too points out that a *svāra* (note) is defined to be pleasing by itself and therefore, if another movement is carried out, that would disturb the constitution of individual notes which would consequently destroy their essential quality of being pleasing by themselves. Incidentally, it is the scale of *ṣaḍja-grāma* which is the basis of calculations here; and in this scale the biggest *śruti*-interval is that of 4 *śruti*-s. (21c-22)

ग. स्वरः

(i) सप्त स्वराः

अुतिम्यः स्युः स्वराः षड्जर्षभगान्धारमध्यमाः ।
षष्ठमो धैवतश्चाथ निषाद इति सप्त ते ॥२३॥
तेषां संज्ञाः सरिगमपधनीत्यपरा मताः ।

C. Svāra and its different aspects

(i) Seven svāra-s (tones) : 23-24b

From out of the *śruti-s*¹ arise the *svāra-s*²; these are seven, viz., *śadja*, *iṣabha*, *gāndhāra*, *madhyama*, *pañcama*, *dhaivata*,

This verse is quite important as it reflects the views of Śaṅgadeva regarding the relationship of *śruti* and *svāra*; and that is why the English version has been rendered as close to the original text as possible, even though it has necessitated an unusual construction.

'*Śruti-s* give rise to the *svāra-s*', is a cryptic statement which affords enough scope for different interpretations. But before discussing these, it will be better to be clear about its obvious implications. As already pointed out, the *svāra-s* arise out of *śruti-s* in the groups of two, three and four, but essentially in groups. As far as the *śuddha svāra-s*, i. e., the standard notes of the *śaṭja-grāma* (to be explained later) are concerned, twentytwo *śruti-s* in the groups of four, three and two go to constitute seven notes called *sa*, *ri*, *ga*, *ma*, *pa*, *dha*, and *ni*.

Now, how do *śruti-s* give rise to *svāra-s* and actually what relationship obtains between them? 'K' discusses this question thoroughly and presents the following possible interpretations :

(i) Since *svāra* as well as *śruti* have the sense of hearing as the means of perception, in the absence of any perceptual distinction, there is no categorical difference between the two; which, therefore, stand in the relationship of the general and the particular (i. e., in other words, they are essentially identical).

1. From out of *śruti-s*, in the groups of four, three and two as already mentioned.
2. In other words, *śruti-s* in different combinations bring different *svāra-s* into being. The verbal form '*śyuh*' is suggestive of a natural occurrence,

and *niṣāda*. Their another accepted nomenclature³ is 'sa-ri-ga-ma-pa-dha-ni'. (23-24b)

- (ii) Like the reflection of the face in the mirror, the *svāra-s* are projected by the *śruti-s*, and present the relationship of appearance and Reality.
- (iii) Just as a ball of mud is said to be the material cause of an earthen pot made out of it, so also *śruti-s* form the material out of which *svāra-s* are shaped. Thus, in this view, *śruti* and *svāra* stand in the relationship of a material cause and effect.
- (iv) As milk gets transformed into curd, so also the *śruti-s* are transformed into *svāra-s*.
- (v) Just as a lamp manifests by its light the objects already existing in darkness, so also the *svāra-s* are manifested by the *śruti-s*.

These views may be critically examined as under:

- (i) The first view does not hold good; for *svāra* and *śruti* are two different concepts related in the spirit of the supporter and the supported, and cannot as such be identical. Moreover, *śruti* and *svāra* cannot be related as the general and the particular merely on account of the non-distinction in the mode of their perception, for 'non-distinction' cannot logically be confused with universality.
- (ii) The second view is still less plausible, for if the *svāra-s* are taken to be mere appearance with reference to *śruti-s*, they have no reality of their own, which is not the case in practice. The *svāra-s* are no less real than the *śruti-s*.
- (iii) It is contended by this view that *śruti* and *svāra* are related as cause and effect. Though, *svāra* follows *śruti* in the sequence of time, yet *śruti* cannot be considered to be the material cause of *svāra* in the same way as a clod of mud can be said to be the material cause of the pot etc., because after the pot has come into being, the mud is no longer available to us apart from the pot. But, this does not hold good in this case; for, it will be untrue to say that apart from the *svāra*, the *śruti-s* constituting the *svāra* are not available. Since they are so available, the *śruti-s* cannot be taken as the material cause of the *svāra-s*.

3. This is constituted in principle by the first letters of the full names and these names accordingly are their diminutive forms or abbreviated symbols,

- (iv) The fourth and the fifth views, being free of any such fault and having been supported by Mataṅga etc., are acceptable.

In fact it is Mataṅga who was first to discuss this topic in such detail and 'K' has only reproduced his views in his own words. Mataṅga summarises the above five views in the following verse, though he also discusses them in detail :

"With respect to *śruti-s* five views are generally held, viz., identity, reflection, causation, transformation and manifestation" (Bṛhaddeśī 31).

Mataṅga points out the faults of the first three views, which are reproduced by 'K' and supports the last two views in general. But then finally he comes out in favour of the 'manifestation theory', as he says :

"By perception, inference and circumstantial evidence the *śruti-s* may be accepted as factors manifesting the *svāra-s*" (Bṛhaddeśī 53).

Thus, Mataṅga considers *śruti-s* to be the factors manifesting the *svāra-s*, and Śārāṅgadeva thinks that *śruti-s* give rise to the *svāra-s*. It is obvious that both are saying the same thing in two different ways. The *śruti-s*, with respect to the *svāra-s*, may therefore be taken to be the factors that in different combinations give rise to different *svāra-s*, constitute them for a while, and so manifest them or make them perceptible.

As pointed out by 'K', Mataṅga has elucidated the significance of the names of the notes, which is represented briefly as under :

- (i) *Ṣaḥja*—is so called because :

- (a) it is the precursor (lit. the progenitor) of the six other notes, or
 (b) it is brought into being by six other notes for, as an integrated part of the heptad (*saptaka*) it is manifested by the rest of the parts together.
 (c) alternatively, it is produced by six organs of the body, viz., the nostrils, the throat, the palate, the breast, the tongue and the teeth.

- (ii) *Rṣabha*—is so called because it quickly appeals to (lit. arrives at) the heart, or as among the herd of cows a bull appears to be distinctly strong so also in the group of notes *rṣabha* is strong and noticeable. It may be added that the first derivation is based on the word *rṣabha* as grammatically derived from the root 'rṣ' to go; while the second is based on the literal meaning of the word, viz., bull which is taken as a symbol of strength. Alternatively, that which sounds (i.e., bellows) like a bull is *rṣabha*.

- (iii) *Gāndhāra*—is so called because it holds musical speech. This interpretation is based on the grammatical derivation of the word *gāndhāra*, "*gāṁ dhārayate-iti-gāndhāra*". Alternatively, it is so called because it delights *gāndhārva-s*, the semi divine beings associated with music.
- (iv) *Madhyama*—is so called because it is in the centre of the seven notes having three on either side. This derivation is based on the literal meaning of the word *madhyama*, which means belonging to the centre. 'K' also gives two other alternatives which seem to be far-fetched.
- (v) *Pañcama*—is that which measures the extent of other notes; or it is so called because it is fifth from the fundamental note. The first view presents a grammatical derivation jointly from two roots, '*pac*'—to extend and '*mi*'—to measure. How it measures the extent of other notes will be made clear subsequently in the context of *pramāṇa śruti* (in the appendix). According to another interpretation, *Pañcama* is so called because it is produced from the fifth place.
- (vi) *Dhāivata*—is so called because being brought about by the *śruti-s* of the 'posterior tone' it is to be discerned by sensitive minds. The expression 'posterior tone' representing the original '*uttarasvāra*' is a technical one. The musical scale is divided into two parts with *madhyama* in the centre and a group of three notes on either side of it. The notes of the first triad are called *pūrvasvāra-s*, i. e., the 'anterior tones' and those of the other following triad are called *uttarasvāra-s* 'posterior tones', and both the triads are respectively called *pūrvāṅga* and *uttarāṅga*, i. e., the anterior section and the posterior section of the heptad (*saptaka*).
- (vii) *Niṣāda*—is so called because the notes of the scale come to a close with it. The word is derived from the Sanskrit root '*ni+ṣad*' to come to a rest. Obviously, *niṣāda* is the last note of the heptad (*saptaka*).

(ii) स्वरलक्षणम्

श्रुत्यनन्तरभावी यः स्निग्धोऽनुरणनात्मकः ॥२४॥

स्वतो रञ्जयति श्रोतृचित्तं स स्वर उच्यते ।

(ii) The definition of *svāra* (tone):

Immediately consequent upon *śruti*¹, creamy² and

Now the *svāra* is being defined. By the way, the essential difference between *śruti* and *svāra* is also implied in this definition. When a string of the *vīṇā* is plucked, the very first sound produced is considered to be *śruti* and the very next sound following it, which is the resounding of the *śruti* is called *svāra*. In other words, whereas *śruti* is essentially free from resonance, resonance is the essential characteristic of *svāra*.

The other two essential characteristic features of '*svāra*' are softness and self-sustained delightfulness.

There is a slight difference of opinion with regards to the interpretation of this definition of *svāra*; 'K' thinks that since the author has already established the notes on the *vīṇā* and defined their *śruti*-intervals, here in this context the word *śruti* means the fourth *śruti* etc., which when manifested resounds subsequently into *gaṇṇa* etc. In other words, by *śruti* is meant that particular *śruti* which is capable of resounding into a note and which is technically called *svārasthāna*, i. e., the seat of a note. However, it is notable that 'S' thinks that the sound produced by the first string (of the 22-stringed *vīṇā*) which is devoid of resonance is called *śruti* while the subsequent resounding sound is called *svāra*.

It is interesting to compare this verse as translated by M. S. Ramaswami Aiyar in his edition of the *Svāramelakalanidhi* as it is borrowed verbatim by Rāmāmātya. He renders it as under:

1. The expression "*śruti-anantara-bhāvi*" is specifically important for it is designed to stress on the one hand the characteristic difference between the concepts of *śruti* and *svāra*, and on the other hand, their specific relation as well. *Svāra*, in other words is a developed *śruti* Since *śruti* here signifies the sound produced by striking a vibrating string in the first instant which is conspicuous by being free from resonance, *svāra* signifies that very sound when it gathers vibrations of resonance and thereby becomes sonorous.

2. *Snigdha* is defined as that (sound) which is soft and is also capable of being heard at a distance. Actually the literal meaning of the word is 'viscous' and is applied as such to liquids only; but here it is used figuratively. In this sense, it is a quality of musical sound. The opposite of *snigdha* is *rakṣa*, i. e., rough or dry.

resonating³, the sound⁴ that delights the listeners' minds by itself⁵ is called *svāra*⁶. (24c-25b)

"That is called *svāra*, which is by itself pleasing to the ear and the mind; which permeates the *śruti*-s; and which is tender and harmonic."

It will be noticed that he renders the expression "*śrutyānantarabhāvi*" as "which permeates the *śruti*-s". Apart from the value of this rendering from a translator's point of view, what is remarkable is the implied relationship of *svāra* and *śruti* in this expression. That *svāra* permeates the *śruti*-s means that, *svāra*-s are involved in *śruti*-s.

3. *Anurāṇana* (*anu*+*rāṇana* lit. the 'post-sound' from *rāṇ* to sound, to ring, to tinkle etc.) technically signifies the sound-vibrations of a string that are produced and that ordinarily follow the sound produced in it (by striking) in the very first instance, which is called *rāṇana* and is devoid of resonance. The term resonance (from *resound*, to echo, to ring, to go on sounding) is generally associated with the resounding of sympathetic strings or bodies other than that in which the original sound is produced; but *anurāṇana* differs from this concept in so far as it denotes resounding of the sound produced in the same vibrating string or body. However, for want of a better word it has been rendered as resonance.
4. The pronoun *yaḥ* is used in the text for it.
5. This is the most important and distinguishing feature of *svāra*, viz., that it should have the quality of delighting the mind of the listeners by itself, i. e., without the need for any other accompaniment or help. 'S' points out that this quality is related to the quality of softness attributed to *svāra*.
6. It is notable that, whereas Mātāṅga derives the word *svāra* from the root *rāṇj*—to shine, to appear, prefixing *svā* to it, Śāringadeva derives it from the root *rāṇj*—to delight. Both of these derivations are semantic explanations and do not have the precision of a grammatical authority. Even so, the difference of approach is significant. Śāringadeva seems to have been under the influence of Abhinavagupta in his interpretation, who stresses the element of resonance (*anurāṇana*) as the most distinguishing feature of the essential nature of *svāra* (tone) in contrast with that of *śruti*, which he says is devoid of it. Accordingly, the beauty of a tone depends on the ratio of unresonating and resonating sound present in its production. Thus every tone has two elements, the unresonating and the resonating; if the former is greater in ratio the tone quality is the lowest, if both are equal it is medium and if the latter is greater it is the best (cf N. S., G O. S. Vol. IV, p. 13).

This line of thinking emphasises the element of delightfulness that essentially characterises the *svāra*, and this is attributed mainly to the element of resonance in it. It is not therefore surprising to find Śāringadeva defining *svāra* as that which is delightful by itself.

(iii) श्रुतीनां स्वरकारणत्वम्

ननु श्रुतिश्रानुत्थ्याविरस्त्वेवं स्वरकारणम् ॥२५॥

श्रुतीनां तत्र पूर्वासां श्रुतीनां हेतुता कथम् ।

ब्रूमस्तुर्यातृतीयाऽऽदिः श्रुतिः पूर्वाऽभिक्काङ्क्षया ॥२६॥

निर्घयितेस्तः श्रुतयः पूर्वा अप्यत्र हेतवः ।

(iii) Discussion regarding śruti-s causing the svāra: 25c-27b

Well indeed, if such śruti-s as the fourth etc.¹, are admitted to be the cause of the svāra-s, how can the other śruti-s such as the third etc.², be considered as their cause? (25c-26b).

We shall presently explain it. Such a śruti, whether fourth or third etc.³, is determined only with reference to the preceding śruti-s⁴; therefore, they too constitute the cause of the svāra-s. (26c-27b)

Now it has been established in principle that from out of śruti-s arise the svāra-s, and therefore, śruti-s are conceived as the antecedent cause of the svāra-s. Whatever be the difference of opinion with respect to the actual relationship between svāra and śruti, there is no denying the fact that all the śruti-s go to bring about the svāra-s. At the same time it is also asserted that since svāra is that sound which immediately follows the śruti in the order of its resonance, it is the fourth, the third and the second śruti respectively of the three groups of four, three and two, that goes to produce the svāra. If that be so, then the question is, "On what basis can the other śruti-s such as the third, the second and the first respectively of the groups of four, three and two be considered as constituting the cause of the svāra-s?"

The answer is as obvious as the question is clear. The fourth or third or the second śruti can be so called only if it is preceded by three śruti-s, two śruti-s and one śruti respectively, and not otherwise. Thus all the śruti-s of a svāra are responsible for its manifestation.

1. 'Fourth etc' of the text refers to column 4 of the above chart while by 'etc', Nos. 2 and 3 of the same column are included.
2. 'Third etc.' of the text refers to column 5 of the above chart, while by 'etc.' Nos. 2 and 3 of the same column are included.
3. As explained in note 1 above.
4. All those enumerated in columns 5 and 6 of the above chart.

वृत्तानां श्रुति-ग्रहणम्

The śruti-groups as related to the different svāra-s are indicated in the following chart :

śruti-groups and the svāra-s (notes)

| S. No. | śruti-group | svāra-s | note-position in terms of śruti | | immediately antecedent śruti | | other antecedent śruti-s | |
|--------|------------------|-------------------------------|---------------------------------|---------------------|------------------------------|---------------------|--------------------------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | | in the svāra | in the scale | in the svāra | in the scale | of the svāra | of the svāra & the scale |
| 1 | 4-śruti interval | śa.lja madhyama pañcama | 4th ,, ,, | 4th 13th 17th | 3rd ,, ,, | 3rd 12th 16th | 2nd & 1st ,, ,, | 2nd & 1st 11th & 10th 15th & 14th |
| 2 | 3-śruti interval | ṛṣabha dhaivata | 3rd ,, | 7th 20th | 2nd ,, | 6th 19th | 1st ,, | 5th 18th |
| 3 | 2-śruti interval | gāndhāra niṣāda | 2nd ,, | 9th 22th | 1st ,, | 9th 21th | — — | — — |

(Chart 5)

(iv) पञ्चजातिषु सप्तस्वरेषु च सनाम श्रुति-विभाजनम्

दीप्ताऽऽयता च करुणा मृदुमध्येति जातयः ॥२७॥

श्रुतीनां पञ्च तासां च स्वरेष्वेवं व्यवस्थितिः ।

दीप्ताऽऽयता मृदुर्मध्या षड्जे स्यादृषभे पुनः ॥२८॥

संस्थिता करुणा मध्या मृदुगन्धारके पुनः ।

दीप्ताऽऽयते मध्यमे ते मृदुमध्ये च संस्थिते ॥२९॥

मृदुर्मध्याऽऽयताऽऽख्या च करुणा पञ्चमे स्थिता ।

करुणा चायता मध्या धंवते सप्तमे पुनः ॥३०॥

दीप्ता मध्येति तासां च जातीनां ब्रूमहे भिदाः ।

तीव्रा रौद्री व्रजिकोन्नेत्युक्ता दीप्ता चतुर्विधा ॥३१॥

कुमुद्वत्यायता याऽऽयाः क्रोधा चाथ प्रसारिणी ।

संदोपनी रोहिणी च भेदाः पञ्चेति कीर्तिताः ॥३२॥

दयावती तथाऽऽलापिन्यथ प्रोक्ता मदन्तिका ।

त्रयस्ते करुणाभेदा मृदोर्भेदचतुष्टयम् ॥३३॥

मन्दा च रतिका प्रीतिः क्षितिर्मध्या तु षड्विधा ।
 छन्दोवती रञ्जनी च मार्जनी रक्तिका तथा ॥३४॥
 रम्या च क्षोभिणीत्यासामथ ब्रूमः स्वरस्थितिम् ।
 तीव्राकुमुद्वतीमन्दाच्छन्दोवत्यस्तु षड्जगाः ॥३५॥
 दयावती रञ्जनी च रक्तिका चर्षभे स्थिताः ।
 रौद्री क्रोधा च गान्धारे वज्रिकाऽथ प्रसारिणी ॥३६॥
 प्रीतिश्च मार्जनीत्येताः श्रुतयो मध्यमाश्रिताः ।
 क्षिति रक्ता च संदीपन्यालापिन्यपि पञ्चमे ॥३७॥
 मदन्ती रोहिणी रम्येत्येतास्तिस्रस्तु धेवते ।
 उग्रा च क्षोभिणीति द्वे निषादे वसतः श्रुती ॥३८॥

(iv) The allocation of *śruti-s* as characterised by their classes and names among the *svāra-s* : 27c-38.

There are five classes¹ of *śruti-s*, viz., *dīptā*, *āyatā*, *karuṇā*, *mṛdu* and *madhyā*; their standing among the *svāra-s* is stated to be as under (27c-28b)

Dīptā, *āyatā*, and *madhyā* are found in *śaḍja*; *karuṇā*, and *mṛdu* find a place in *ṛṣabha*; *dīptā* and *āyatā* are located in *gāndhāra* and also in *madhyama* along with *mṛdu* and *madhyā*; *mṛdu*, *madhyā*, *āyatā* and *karuṇā* are placed in *pañcama*, and *karuṇā*, *āyatā* and *madhyā* in *dhaivata*; while *dīptā* and *madhyā* are in *niṣāda*. (28c-31a)

Now, we shall speak of the subdivisions of these classes : *Dīptā* is said to be fourfold viz., *tīvrā*, *raudrī*, *vajrikā* and *ugrā*; *āyatā* is known to have five varieties viz., *kumudvatī*, *krodhā*, *prasāriṇī*, *sandīpanī* and *rohiṇī*; *karuṇā* is said to be threefold,

Twentytwo *śruti-s* have been distinguished into five classes. The basis of this classification has not been made explicit in the text, nor have the commentators found it necessary to elucidate it. However, it seems that the different classes of *śruti-s* have something to do with the relationship of notes and the *rāsa-s* or the aesthetic colours attributed

¹ *ṛti* literally means 'species', 'class' or 'genus'.

viz., *dayāvati*, *ālapini* and *madantikā*; *mṛdu* is fourfold, viz., *mandā*, *ratikā*,² *prīti* and *kṣiti*; while *madhyā* is sixfold, viz., *chandovati*, *rañjanī*, *mārjanī*, *raktikā*, *ramyā* and *kṣobhiṇī*. (31b-35a)

And now we shall point out their position among the *svāra-s* :

Tīvrā, *kumudvatī*, *mandā* and *chandovati* pertain to *śaḍja*; *dayāvati*, *rañjanī* and *raktikā* are related to *ṛṣabha*; *raudrī* and *krodhā* are in *gāndhāra*; *vajrikā*, *prasāriṇī*, *prīti* and *mārjanī* abide by *madhyama*; *kṣiti*, *raktā*, *sandīpanī* and *ālapini* are in *pañcama*; the three *madanti*, *rohiṇī* and *ramyā* in *dhaivata* and the two *śruti-s*, *ugrā* and *kṣobhiṇī* dwell in *niṣāda*. (35b-38)

to them in the ancient theory of Indian music. This is implied in their nomenclature and elucidated as under :

- (i) *Dīptā*, 'dazzling'; literally, illumined,
- (ii) *Āyatā*, 'vast'; literally, extended,
- (iii) *Mṛdu*, 'tender'; literally, soft,
- (iv) *Madhyā*, 'moderate'; literally, medium or central, and
- (v) *Karuṇā*, 'compassion'.

The names signify tonal sequence in melodic development and are representative of emotional colour; this aspect would be more clear with the further classification of the classes, as it follows.

The distribution of *śruti-classes* among the different notes is illustrated in the following chart (No. 6), which at once elucidates the relationship of a particular note with the different *śruti-classes* and also the relationship of a particular *śruti-class* to different notes. The numbers in the squares indicate the position of a particular *śruti* in the group of *śruti-s* constituting a particular note.

śruti-classes and svāras

| S.No | class names of śruti-s | śaḍja | ṛṣabha | gāndhāra | madhyama | pañcama | dhaivata | niṣāda |
|------|------------------------|----------------|----------------|----------------|----------|---------|----------|--------|
| 1 | <i>dīptā</i> | 1 ⁰ | | 1 ⁰ | 1 | | | 1 |
| 2 | <i>āyatā</i> | 2 ⁰ | | 2 ⁰ | 2 | 3 | 2 | |
| 3 | <i>karuṇā</i> | | 1 ⁰ | | | 4 | 1 | |
| 4 | <i>mṛdu</i> | 3 ⁰ | 3 ⁰ | | 3 | 1 | | |
| 5 | <i>madhyā</i> | 4 ⁰ | 2 ⁰ | | 4 | 2 | 3 | 2 |

(Chart 6) (28c-31a)

2. It is notable that *raktikā* is not mentioned in the verses 35 b-38. However *raktā* which does not appear here is mentioned.

The five *śruti*-classes are further subdivided each having quite a few varieties. That means, each *śruti* belongs to a class which implies a class attribute common to all the *śruti*-s of the class and that class comprehends a few varieties implying special traits along with the class character. This specific character seems to be the association of a particular class-*śruti* with particular notes. For example, *dīpta* is associated with four notes and is said to be of four varieties, *āyata* is associated with five notes and has five varieties and so on, as it is illustrated in the following chart (No. 7).

The chart illustrates the subdivisions of the *śruti*-classes, representing their class characters as distributed among the *svāra*-s, indicating thereby their specific traits. The names in the squares pertain to the class subdivisions. The number alongside indicates the position of the *śruti* in the *śruti*-structure of the *svāra*. The chart illustrates the subject matter of verse Nos. 35b-38 as well.

Subdivisions of *śruti*-classes distributed among the *svāra*-s

| Svāra or note signifying specific characters | <i>śruti</i> class names signifying general characters | | | |
|--|--|---------------------|-------------------|---|
| | <i>dīpta</i> | <i>āyata</i> | <i>mīdu</i> | <i>madhyā</i> , <i>karuṇā</i> |
| <i>Ṣaḍja</i> | <i>tivra</i> -1 | <i>kumudvati</i> -2 | <i>mandā</i> -3 | <i>chandovati</i> -4 |
| <i>Rṣabha</i> | | | <i>raktika</i> -3 | <i>rañjani</i> -2 <i>dayāvati</i> -1 |
| <i>Gāndhāra</i> | <i>raudri</i> -1 | <i>krodhā</i> -2 | | |
| <i>Madhyamā</i> | <i>vajrika</i> -1 | <i>prasāriṇī</i> -2 | <i>prīti</i> -3 | <i>marjani</i> -4 |
| <i>Pañcama</i> | | <i>sandīpanī</i> -3 | <i>kṣīti</i> -1 | <i>raktā</i> -2 <i>alāpini</i> -4 |
| <i>Dhāivata</i> | | <i>rohiṇī</i> -2 | | <i>ramyā</i> -3 <i>madanti</i> -1 |
| <i>Niṣāda</i> | <i>ugrā</i> -1 | | | <i>kṣobhiṇī</i> -2 |

(Chart 7)

(31b-35a)

Chart No. 7 graphically illustrates the position of these particular *śruti*-s in the different note-intervals. The names of these *śruti*-s are suggestive of their aesthetical value as related to their tonal quality. Contemplating upon the value or the purpose of classification of *śruti*-s briefly, 'S' suggests that they are perhaps designed to arouse the feelings or the affections implied by their names. This hypothesis is quite plausible and the whole scheme of this *śruti*-classification needs to be scientifically investigated. (35 b-38)

felt

(v) स्वराणां स्थानत्रयम्

ते मन्द्रमध्यताराख्यस्थानभेदात्त्रिधा मताः ।

(v) Three *sthāna*-s (registers) of *svāra*-s : (39ab)

These (*svāra*-s) are considered as threefold according to the different registers known as *mandra*, *madhya* and *tāra*, i. e., low, medium and high. (39ab)

Having dealt with the *śruti*-s, the *śruti*-classes and the development of notes out of them, the author now proceeds to demonstrate the differentiation and the classification of notes.

In the first instance the notes are classified according to their *sthāna* i. e., the place of perceptible effort for voice-production in the human organism. It has already been pointed out by the author (verse 7 ante) that *nāda* manifests itself in three places, viz., in the region of the heart, throat and the cerebrum. These are the three *sthāna*-s from which notes are produced. Corresponding to these three, the notes are classified in three registers or to speak loosely, three octaves, viz., *mandra*, *madhya* and *tāra*. *Mandra* represents what is known as chest-voice, *madhya* is throat-voice and *tāra* is the high (head).

(vi) द्वादश विकृतस्वराः

त एव विकृतावस्था द्वादश प्रतिपादिताः ॥३९॥

च्युतोऽच्युतो द्विधा षड्जो द्विभ्रुतिविकृतो भवेत् ।

साधारणे काकलीत्वे निषादस्य च दृश्यते ॥४०॥

(vi) Twelve modified notes : 39c-46b

These notes, in their modified form, are established as twelve. (39cd)

Ṣaḍja, modified by two *śruti*-s in two different ways is (called) lowered (*ṣaḍja*¹) and unmoved² *ṣaḍja* respectively by the

1. *Cyuta* literally means sub-standard, fallen or lowered in pitch.
2. *Acyuta* is steadfast, standard and unmoved.

साधारणे श्रुति षड्जीमृषभः संश्रितो यदा ।
 चतुःश्रुतित्वमायाति तदेको विकृतो भवेत् ॥४१॥
 साधारणे त्रिश्रुतिः स्यादन्तरत्वे चतुःश्रुतिः ।
 गान्धार इति तद्भेदौ द्वौ निःशङ्केन कीर्तितौ ॥४२॥
 मध्यमः षड्जवद् द्वेधाऽन्तरसाधारणाश्रयात् ।
 पञ्चमो मध्यमग्रामे त्रिश्रुतिः कंशिके पुनः ॥४३॥
 मध्यमस्य श्रुतिं प्राप्य चतुःश्रुतिरिति द्विधा ।
 धंवतो मध्यमग्रामे विकृतः स्याच्चतुःश्रुतिः ॥४४॥
 कंशिके काकलीत्वे च निषादस्त्रिचतुःश्रुतिः ।
 प्राप्नोति विकृतौ भेदौ द्वाविति द्वादश स्मृताः ॥४५॥
 ते शुद्धः सप्तभिः सार्धं भवन्त्येकोनविंशतिः ।

process of *sādhāraṇa*³ (overlapping) and the 'kakalisation'⁴ of *niṣāda*. (40)

When, in the process of *ṣaḍja-sādhāraṇa*³ (the overlapping of *ṣaḍja*), *ṛṣabha* absorbs one *śruti* of *ṣaḍja*, it attains the

Though the notes in their original form are found to be seven only, it is said that in actual usage when their standard pitch is modified either by augmenting it or by lowering it, they are known to be twelve in all. The modified notes or the *vikṛta svāra-s* are discussed in the following few verses. (39cd)

The modification of notes is dealt with from verse 40 to 45 and in this space the author explains how the modified notes are formed and why they number twelve.

Ṣaḍja is modified to the extent of two *śruti-s* in two different ways, viz. (i) by losing its note-*śruti* (i. e., 4th) to the advantage of *ṛṣabha* and its initial *śruti* (i. e. 1st) towards *niṣāda*, and (ii) by yielding its first two *śruti-s* to *niṣāda*. The first process is called *cyuta-ṣaḍja-sādhāraṇa* (the overlapping of lowered *ṣaḍja*) and affects the position of the note-*śruti* of *ṣaḍja* which is technically called *cyuta-ṣaḍja* (lowered *ṣaḍja*), and the second process is known as the *kakalīva* of *niṣāda*, by which *niṣāda* gains

3. *Sādhāraṇa* refers to *ṣaḍja-sādhāraṇa*.

4. When *niṣāda* is augmented by gaining two *śruti-s* of *ṣaḍja*, it is transformed into *kakalī-niṣāda* and this transformation of *niṣāda* is technically named as "the kakalisation of *niṣāda*."

5. In the text only *sādhāraṇa* is mentioned, but it is the *ṣaḍja-sādhāraṇa* that is intended; it has been made explicit to avoid confusion in the English version.

interval⁶ of four *śruti-s*, and that is its only modified form. (41ab)

Gāndhāra assumes two modified forms as enunciated by *Śāraṅgadeva*⁷ viz., with three *śruti-s* in the process of *madhyama*⁸-*sādhāraṇa* (the overlapping of *madhyama*) and with four *śruti-s* in the case of *antaragāndhāra*.⁹ (41c-42b)

the two initial *śruti-s* of *ṣaḍja* leaving its note-*śruti* quite unaffected. The second process is, therefore, associated with *acyuta ṣaḍja*, i. e., unlowered or unmoved *ṣaḍja*. This subject matter is dealt with in detail in Section 5 of this chapter. It may, however, be noted that the modified *ṣaḍja* has only two *śruti-s* viz., the second and the third, and the third and the fourth respectively of the original four.

'S' raises an interesting question. In the case of unmoved *ṣaḍja*, *ṣaḍja* retains its *śruti*-note intact while yielding two initial *śruti-s* to *niṣāda*; therefore, its pitch remains unaffected, how then can its tone be called modified? As it is obvious and also explained by 'S', normally *ṣaḍja* is at the distance of four-*śruti*-interval from *niṣāda* which in its modified state is reduced to that of two-*śruti*-interval. Now, since the tonal value of the notes is essentially relative in this system, the reduction in the extension of *ṣaḍja* is adequately felt. Thus, even though the pitch remains the same, the duration and the tonal content is modified. (40)

In the process of the overlapping of *ṣaḍja*, its first *śruti* is gained by the preceding *niṣāda* and its fourth *śruti* is attached by *ṛṣabha*, the extent of which is extended thereby to four-*śruti*-interval; and this is the only modification undergone by *ṛṣabha*. *Ṛṣabha* is thus composed of the *śruti-s* numbering 4th to 7th from the first of *ṣaḍja*.

Just as *ṣaḍja* is modified in two forms viz., by the overlapping of *ṣaḍja* and the 'kakalisation' of *niṣāda*, so also *madhyama* is modified in

6. *Caṭuḥ-śrutitva* consists in having the note-interval of four *śruti-s*.

7. *Niṣṭāṅka* of the text literally means 'free from doubts' and is an epithet of *Śāraṅgadeva*.

8. Only *sādhāraṇa* is spoken of in the text but, obviously *madhyama-sādhāraṇa* is applicable here, and so it has been made explicit.

9. *Antarava* consists in *gāndhāra* gaining two initial *śruti-s* of *madhyama* which by itself remains of two-*śruti*-measure only. Thus, by this action, *gāndhāra* gains a medial (*antara*) position between standard *gāndhāra* and *madhyama*, and is therefore called *antara-gāndhāra*, i. e. medial *gāndhāra*. *Antarava*, therefore, signifies the 'medial position' of *gāndhāra*.

Madhyama, like *ṣaḍja* is (modified) in two ways viz., by taking resort to the process of '*antara*' and that of '*sādhāraṇa*'. (42cd).

Pañcama is of three *śruti*-measure in the *madhyama-grāma*, while in the *madhyama-sādhāraṇa*¹⁰ (the overlapping of *madhyama*), gaining one *śruti* from *madhyama* it extends to four *śruti*-s; and is thus modified in two ways. (42-44b)

Dhāivata of *madhyama-grāma* is modified to be of four *śruti*-interval. *Niṣāda* is modified in two ways viz., in its *kaiśika* and *kakali* forms having three and four *śruti*-s respectively. And so they make twelve modified forms, which along with the seven standard¹¹ notes become nineteen in all. (44c-46b).

two ways viz. (i) by yielding one *śruti* to *gāndhāra* and one to *pañcama*, an example of *cyuta* (lowered)-*madhyama*, and (ii) by affording its two initial *śruti*-s to *gāndhāra*, an example of *acvuta* (unmoved)-*madhyama*. The former mode is called *madhyama-sādhāraṇa* (the overlapping of *madhyama*) and the latter is known as *antara-sādhāraṇa*.

Thus, when *gāndhāra* is modified by the overlapping of *madhyama*, it gains its initial *śruti* and is thereby constituted of three *śruti*-s viz., the 8th, 9th and 10th; and when it is modified by the medial position of *gāndhāra* (*antarakṛta*) it appropriates two initial *śruti*-s of *madhyama* to itself and the number of its *śruti*-s swells to four, viz., 8th to 11th. This latter *gāndhāra* of four *śruti*-s is called *antara-gāndhāra*. Thus *gāndhāra* has two modified forms, viz., *sādhāraṇa* (i.e., the one consequent upon *madhyama-sādhāraṇa*) and *antara* (i.e., *antara-gāndhāra*) constituted respectively by *śruti*-s numbering 8th to 10th and 8th to 11th from the first of *ṣaḍja*. (41-42b)

In the modification of *gāndhāra*, the two processes of the overlapping of *madhyama* and the medial position of *gāndhāra* have been explained with reference to *gāndhāra*. Now, we have to consider them from the point of view of *madhyama*.

Madhyama is constituted by the *śruti*-s numbering 10 to 13 in the unmodified series. By the process of overlapping *ma* lends 10th *śruti* to

10. *Kaiśika* is another name for *sādhāraṇa*.

11. The word *śuddha* has to be interpreted with reference to the word *vikṛta*. *Vikṛta*, simply means modified and therefore *śuddha* would mean unmodified. But since that is a negative expression and the general tenure of the term *śuddha* is rather positive, it seems it would be better to render it as 'standard'.

ga and 13th *śruti* to *pa* and retains 11th and 12th *śruti*-s itself. In the process of the medial movement (*antarakṛta*) of *gāndhāra ma* yields 10th and 11th *śruti*-s to *ga*, and retains only 12th and 13th *śruti*-s. So, these are the two modified forms of *madhyama*, constituted respectively of 11th, and 12th, and 12th and 13th *śruti*-s. (42cd)

There is an obvious similarity between the modifications of *ṣaḍja* and *madhyama* as previously pointed out. With respect to the *grāma*-s, we are going to be informed adequately in the next Section of this chapter. For the present, it may be understood roughly that a *grāma* signifies a series of notes related in a certain order. Two such scales were in practice, viz., *ṣaḍja-grāma*, having *ṣaḍja* as its prominent note and *madhyama-grāma*, having *madhyama* as its prominent note. *Pañcama* is established on the 17th *śruti* in *ṣaḍja-grāma* and on the 16th *śruti* in *madhyama-grāma*. This is one way how the two *grāma*-s are distinguished from each other; of course this also affects the relative position of other notes which we shall see in due course.

Now, with this background we can follow the text. In the *madhyama grāma*, *pañcama* comprises the 14th, 15th and the 16th *śruti*-s, whereas in the *ṣaḍja grāma*, it also has the 17th *śruti* which is considered to be the note-*śruti* and therefore, the '16-*śruti*' *pañcama* is one of the modifications of the standard *pañcama*. Another modification occurs by the process of the overlapping of *madhyama* (i.e. *madhyama-sādhāraṇa*), when it gives up 13th *śruti* which is absorbed by the *pañcama* of *madhyama grāma*. The standard form of the *pañcama* of *madhyama-grāma* comprises of three *śruti*-s only, and when it gains one *śruti* from *madhyama* its extent widens to four *śruti*-s, i.e., 13th to 16th, and this constitutes another modification of *pañcama*. (42c-44b)

While *pañcama* is established on the 16th *śruti* in *madhyama-grāma*, the 17th *śruti* which is the note-*śruti* of *pañcama* in *ṣaḍja-grāma* is released and absorbed by *dhāivata*, which consequently comprises the *śruti*-s numbering 17 to 20 i.e., four in contrast with the standard three viz. 18 to 20 of the *ṣaḍja-grāma*. Thus, this is the only modification of *dhāivata*.

Kaiśika is another name for *sādhāraṇa Kaiśika-niṣāda* which is a product of the overlapping of *ṣaḍja* when it yields its initial *śruti* to *niṣāda*, swelling it to three *śruti*-s in extent viz., 21st and 22nd and 1st. Similarly, *niṣāda* is transformed into *kakali-niṣāda* when it gains two initial *śruti*-s of *ṣaḍja* and comprises 21st, 22nd and 1st and 2nd *śruti*-s. Thus *niṣāda* has two modified forms respectively known as *kaiśika-niṣāda* and *kakali-niṣāda*.

The twelve modified notes as related to the standard (*śuddha*) notes can be studied at a glance from the following chart :

Modified notes as related to standard notes in terms of *śruti-s*

| Sl. No. | name of <i>svāra-s</i> (notes) | standard notes | | modified notes | | | | no. of modified notes | note- <i>śruti-s</i> | |
|---------|--------------------------------|----------------|-----------------------|----------------|-----------------------|----------------|-----------------------|-----------------------|-------------------------|-----------------|
| | | extent | No. of <i>śruti-s</i> | from I extent | No. of <i>śruti-s</i> | form II extent | No. of <i>śruti-s</i> | | stand-ard notes | modi-fied notes |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | |
| 1 | <i>śaḍja</i> | 1-4 | 4 | 2-3 | 2 | 3-4 | 2 | 2 | 4th (i) 3rd (ii) 4th | |
| 2 | <i>ṛṣabha</i> | 5-7 | 3 | 4-7 | 4 | | | | 7th 7th | |
| 3 | <i>gāndhāra</i> | 8-9 | 2 | 8-10 | 3 | 8-11 | 4 | 2 | 9th (i) 10th (ii) 11th | |
| 4 | <i>madhyama</i> | 10-13 | 4 | 11-12 | 2 | 12-13 | 2 | 2 | 13th (i) 12th (ii) 13th | |
| 5 | <i>pañcama</i> | 14-17 | 4 | 13-16 | 4 | 14-16 | 3 | 2 | 17th (i) 16th (ii) 16th | |
| 6 | <i>dhaivata</i> | 18-20 | 3 | 17-20 | 4 | | | 1 | 20th 20th | |
| 7 | <i>niṣāda</i> | 21-22 | 2 | 21-1 | 3 | 21-2 | 4 | 2 | 22nd (i) 1st (ii) 2nd | |

(Chart 8)

It is worthy of note in column 6 that in the case of serial nos. 1, 2, 4 and 6 the note-*śruti-s* of the standard notes and the modified notes coincide respectively as the 4th, 7th, 13th and 20th. This phenomenon needs an explanation which is offered as follows :

- Though the note-*śruti* of the second modification of *śaḍja* is 4th just like the standard *śaḍja*, it differs from it in so far as its note-interval from *niṣāda* is only of two-*śruti* measure as compared with four-*śruti* interval of the standard *śaḍja*.
- Although the note-*śruti* of the modified *ṛṣabha* is the same as that of the standard *ṛṣabha* viz., the 7th, its note interval is of four-*śruti* measure from *śaḍja* as against the three-*śruti* measure of the standard *ṛṣabha*.
- The note-*śruti-s* of the standard *madhyama* and its second modification are identical viz., the 13th. but whereas the note interval of the modified form is of two *śruti-s* from *gāndhāra*, that of the standard form is of four *śruti-s*.
- Similarly, the note-*śruti* of standard *dhaivata* is identical with the note-*śruti* of modified *dhaivata*; and yet the note-interval of the modified form is four *śruti-s* from *pañcama* whereas the standard note-interval is only three *śruti-s*.

Thus, even though the note-*śruti-s* in certain cases are identical the note-intervals of the standard and the modified forms being quite different, there is no room for any confusion with regard to their character. (44c-46b)

(vii) सप्तस्वराणामुच्चारयितारः पशुपक्षिणः

मयूरचातकच्छागक्रीञ्चकोकिलद्वराः

॥४६॥

गजश्च सप्त षड्जादीन्क्रमादुच्चारयन्त्यसौ ।

(vii) Production of *svāra-s* (tones) by the birds and animals : 46c-47b

The seven notes commencing with *śaḍja* are produced respectively by the peacock, *cātaka*¹, goat², heron, cuckoo, frog and the elephant. (46c-47b)

The seven notes of the heptad³ (*saptaka*) are perceived and utilised not only by the human beings, but also by the rest of the animal kingdom. The notes have been identified with the expressions of particular animals and birds. The author does not elaborate this theme and merely seems to have recorded a popular concept that confirms the fact that the notes actually exist in nature and are only seven. The following extract from the article of Bulwant Trimbuk, as published in the 'History of Hindu Music' (p. 11) will be found to be of great interest.

"Nature is never stingy or cruel to her children, when they serve her earnestly. The same craving after knowledge and spirit of patient enquiry which discovered to the Aryans that the high, low and middle notes had typical representatives in the animal kingdom, the same musical ear which showed them the sounds proper for repeating the lessons in the morning, noon and at other times, disclosed to them that the animals produce certain notes, and no more. They found that the peacock, ox, goat, crane, black-bird, frog and elephant uttered certain distinct notes, and that all the notes of the denizens of the forest could be put down under one or the other of those 7 heads. In this way were the seven musical notes found and fixed upon."

- Cātaka* is a bird of poetic convention. It is held that this bird takes only rain-water. Kunhan Raja's note in this respect is quite interesting and is reproduced verbatim: "Cātaka is a mythological bird supposed to have holes in the neck, and as such, unable to drink water in the ordinary way; they drink water remaining with their breast upwards when rain falls, so that the water does not leak out through the holes."
- K. R. renders it as 'ram'.
- Heptad is used as an equivalent of Sanskrit *saptaka* which is conceived in place of the octave.

He also relates certain psychological states of mind, aesthetic moods with the notes and the animals as reproduced in the following table. The *rasa-s* or the aesthetic moods are in theory attributed to various notes by our author as well.

Notes as related to the birds and animals and the *rasa-s*

| Sanskrit notes | English notes | Sanskrit names | English names | Types in the animal kingdom | Sentiments peculiar to |
|----------------|---------------|----------------|---------------|-----------------------------|------------------------|
| Sa | C | Shadja | Do | Peacock | Heroism wonder, terror |
| Ri | D | Rishabha | Re | Ox or Chataka | —do— |
| Ga | E | Gandhara | Mi | Goat | Compassion |
| Ma | F | Madhyama | Fa | Crane | Humour & Love |
| Pa | G | Panchama | Sol | Black-bird | —do— |
| Dha | A | Dhaivata | La | Frog | Disgust, Alarm |
| Ni | B | Nishada | Si | Elephant | Compassion |

(Chart 9)

Note :—Spellings and English equivalents of Sanskrit words have been retained as in the original.

(viii) ऋदि-संवादि-विवाद्यनुवादिभेदेन चतुर्विधाः स्वराः

चतुर्विधाः स्वरा वादी संवादी च विवाद्यपि ॥४७॥

अनुवादी च वादी तु प्रयोगे बहुलः स्वरः ।

(viii) Sonant, consonant, dissonant and assonant notes : 47c-51

The notes are fourfold viz., sonant¹, consonant², dissonant³ and assonant⁴; of these, sonant is that note which in

Having defined the relative form of the notes, the author now proceeds to classify them from a different point of view, viz., on the functional basis. The Sanskrit name for sonant is *vādī* which literally means

1. *Vādī*, literally means speaker i. e., the note that frequently sounds.
2. *Sahvādī*, literally means the corresponding note, the note that converses in tune with the sonant, with the *vādī*.
3. *Vivādī*, literally means the opponent, the disputant i. e., the note of discord.
4. *Anuvādī*, literally means that which sounds afterwards, which follows i. e., the note that supports the sonant.

श्रुतयो द्वादशाष्टौ वा ययोरन्तरगोचराः ॥४८॥

मिथः संवादिनौ तौ स्तो निगावन्यविवादिनौ ।

रिधयोरेव वा स्यातां तौ तयोर्वा रिधावपि ॥४९॥

शेषाणामनुवादित्वं वादी राजाऽत्र गीयते ।

संवादी त्वनुसारित्वात्स्यामात्योऽभिधीयते ॥५०॥

विवादी विपरीतत्वाद्धीरंरुक्तौ रिपूपमः ।

performance is most frequently used. The notes having an interval of eight or twelve *śruti-s* are mutually consonant. *Mi* and *ga* are dissonant to all other notes, or to *ri* and *dha* only, or *ri* and *dha* too are their dissonants. The rest of the notes are related as assonants. (47c-50a)

The sonant among them⁵ is considered to be the ruler, while the consonant, being in concert with it, is called the minister; the dissonant being antagonistic is likened by the sages to an enemy, the assonant⁶, however, since it follows the king as well as the ministers, is like a servant. (50b-51)

speaker. The name itself is suggestive of its function viz., the one that sounds frequently, and thereby establishes the melodic pattern of *rāga*. Generally, the sonant is also the fundamental note (the tonic), specially in the *jāti* and *grama-rāga-s*.

'K' defines *sahvādī* i. e., consonant as the note which, in consonance with the sonant, creates the quality of delightfulness in a *rāga* (a melodic structure) and helps to maintain it. 'S' raises the point that, whereas Śārṅgadeva has spoken of eight or twelve *śruti-intervals* being the necessary condition for consonance of notes, Mataṅga and Dattila have mentioned nine or thirteen *śruti-s* as constituting the required interval. Now, in order to answer this question as well as to grasp the whole concept of consonance of notes, it is necessary to examine the statements of Mataṅga and Dattila. Mataṅga says :

"The notes placed at the interval of nine or thirteen *śruti-s* are mutually consonant" (as quoted by 'S').

5. That is, the four types of notes viz., the sonant, the consonant, the assonant and the dissonant.
6. The assonant is like a servant, in so far as it has no other function except to strengthen the leading note in concordance with the consonance; it has no individuality of its own.

It is important to note that Mātāṅga lays down the condition of the notes being of identical *śruti*-measure, in addition to the required note-interval of nine or thirteen *śruti*-s. Following Mātāṅga, Abhinavagupta elaborates the concept of *samaśrutikatā* (identity of *śruti*-measure) of a tone with reference to the last *śruti* of the preceding tone. Thus Bharata has enumerated the following pairs of consonant notes in the *ṣaḍja-grāma* : *sa-ma*, *sa-pa*, *ri-dha* and *ga-ni* based on 9 and 13 *śruti*-intervals. What is notable is that he has not included the pair of *ma-ni* which implies a 9 *śruti*-interval. This is so because *ma* and *ni* being at a distance of 4 and 2 *śruti* s from the last *śruti*-s of their respective preceding notes are not identical in their *śruti*-measure. Thus the phenomenon of *svāra-samvāda* which is inaccurately identified as the consonance of notes, is not only an acoustical but also a melodic phenomenon. In the former case it signifies the relation of *svāra*-s in terms of the *śruti*-interval obtaining in-between them and in the latter case it refers to the identity of *śruti*-measure constituting them. The melodic effect of this aspect of *svāra-samvāda* is amply demonstrated by reciprocal triads formed by the consonance of notes as defined above. For example, Brihaspati points out that in case of *ma-ni*, which has been excluded by Bharata from the consonant pairs, '*ma-ga-ri*' cannot be reciprocated by *ni* as '*ni-dha-pa*', the reciprocal triad would be '*sa-ni-dha*' and not '*ni-dha-pa*'. Hence *ma-ni* have not been spoken of as having *samvāda*' (cf. I.M. J. No. 7, p. 60 and P.L.S.: I.M. J. Nos. 11-12, p. 57).

Incidentally the minute difference between the concept of consonance in western music and *samvāda* of Indian music is also made clear through the concept of *samaśrutikatā*.

Furthermore, as 'S' explains, Mātāṅga includes the note-*śruti* of the note with which consonance is established in the number of *śruti*-s forming the interval, whereas Śārṅgadeva excludes it; that is why Śārṅgadeva speaks of eight and twelve *śruti*-interval and (Bharata), Mātāṅga and Dattila add one more to state as nine and thirteen-*śruti*-interval. For example, take the consonance of *sa-pa*. The note-*śruti* of *sa* is 4th and that of *pa* is 17th; and if, while measuring this interval, one counts from 4th (including it) to 16th it would make for a thirteen-*śruti* interval but if the 4th is excluded, then it would make for a twelve-*śruti* interval. The consonance of notes is reflected in the following chart :

Sonants and consonants

| Sonants | consonants | note-interval of Śārṅgadeva | note-interval of Mātāṅga | Relation |
|---------|------------|--------------------------------|-----------------------------|----------------|
| | (i) ma | 8 | 9 | ṣaḍja-madhyama |
| Sa | (ii) pa | 12 | 13 | ṣaḍja-pañcama |
| Ri | dha | 12 | 13 | " |
| Ga | ni | 12 | 13 | " |
| Ma | sa | 12 | 13 | " |
| Pa | sa | 8 | 9 | ṣaḍja-madhyama |
| Dha | ri | 8 | 9 | " |
| Ni | ga | 8 | 9 | " |

(Chart 10)

It will be clear from the above chart that even though all the notes have their own consonants in turn, yet only two relations of consonance, viz., the 8-*śruti* and the 12-*śruti* intervals are recognised; and these are respectively known as the *ṣaḍja-madhyama* relation and the *ṣaḍja-pañcama*-relation.

But what is the function of the consonance of notes in performance? 'S' explains on the authority of Mātāṅga (obviously) that, the underlying principle is that a consonant note can replace a fundamental note (i. e. tonic) without damaging the spirit of the mode and the rāga (the melodic pattern). For example, in case of *sa-pa* consonance, if in a given composition *sa* is the fundamental note and it is substituted by *pa*, it would not adversely affect the value of the aesthetic potential of the melody.

It may also be noted that even though Mātāṅga concedes the relationship of consonants only between the notes of identical or equal *śruti*-measures, Śārṅgadeva in agreement with Dattila does not mention this condition. Thus he would admit consonance between whatever notes that are placed at the distance of 8 or 12 *śruti*-s.

Now with regard to the dissonant notes the author presents two or three views altogether :

- (i) that *ga* and *ni* are dissonant to all other notes
- (ii) that *ga* and *ni* are dissonant to *ri* and *dha*
- (iii) or/and *ri* and *dha* too are dissonant to *ga* and *ni*.

The underlying principle, however, seems to be that the notes having two *śruti* s are dissonant. This is enunciated by Mātāṅga when

he says "Notes extending to two *śruti*-s are dissonants". The function of dissonants is defined by Mātāṅga and elucidated by 'S' to the purport that the notes that can only disturb and destroy the melodic structure of a *rāga*, established in the configuration of the fundamental note (tonic), the assonant and the consonant notes put together, are dissonant. Again this yardstick has to be applied through the principle of substitution i. e., if *ga* is substituted for *ri* or vice versa, then the mode and the melodic pattern of the composition are disturbed, and consequently there is loss of aesthetic effect.

The notes that are not mutually related either as consonants or as dissonants are considered to be assonants. 'S' quotes Mātāṅga who says that notes short of one *śruti* interval are assonants. Thus, for example he says, if *ṛṣabha* is used for *ṣaḍja*, *dhaivata* for *pañcama*, *ṛṣabha* for *pañcama*, or *dhaivata* for *ṣaḍja* or vice versa, the mode of the melodic pattern is not adversely affected. 'S' adds *ṛṣabha* for *madhyama*, and *dhaivata* for *madhyama* and vice versa in this line.

But what is the function of assonants? *Anuvādi* literally means that which sounds after (the dominant) i.e., the note that follows or supports the sonant. Mātāṅga also lays down that "the function of the assonant is to fortify and strengthen the spirit of the melodic pattern established by the sonant." (47c—50a)

The relationship of the four classes or functions of the notes is illustrated by a metaphor. Just as it is the king who commands in consultation with his minister, so also does the sonant function in close coordination with the consonant, and yet enjoys the supremacy of the king. The assonants are so many servants working for the sonant and the consonant, strengthening them; and the dissonant is like the enemy of the whole team. (50b—51)

(ix) स्वराणां कुलजातिवर्णदैवतर्षिच्छन्दोरस कथनम्

गोर्वाणकुलसंभूताः षड्जगन्धरमध्यमाः ।

पञ्चमः पितृवंशोत्थो रिधावृषिकुलोद्भूवो ॥५२॥

(ix) Lineage, caste, colour, continent, sage, deity, metre and *rasa* (aesthetic delight) of the *svāra*-s : 52-60b

Ṣaḍja, *gāndhāra* and *madhyama* are of divine origin¹, *pañcama* has arisen from the lineage of manes, *ṛṣabha* and

1. *Girvanakula*, literally means the 'house of gods', or in fact, the concept 'kula' is akin to the concept of commune; thus the expression implies that *sa*, *ma* and *pa* are descended from the community of gods.

निषादोऽसुरवंशोत्थो ब्राह्मणाः समपञ्चमाः ।
रिधो तु क्षत्रियौ ज्ञेयो वंश्यजातो निगौ मती ॥५३॥
शूद्रावन्तरकाकल्यौ स्वरो वर्णास्त्वमे क्रमात् ।
पद्माभः पिञ्जरः स्वर्णवर्णः कुन्दप्रभोऽसितः ॥५४॥
पीतः कर्बुर इत्येषां जन्मभूमोरथ ब्रुवे ।
जम्बूशाककुशक्रौञ्च शाल्मलीश्वेतनामसु ॥५५॥
द्वीपेषु पुष्करे चैते जाताः षड्जादयः क्रमात् ।
वह्निर्वेधाः शशाङ्कश्च लक्ष्मीकान्तश्च नारदः ॥५६॥
ऋषयो ददृशुः पञ्च षड्जादीस्तुम्बुरुर्धनी ।
वह्निब्रह्मसरस्वत्यः शर्वश्रीशगणेश्वराः ॥५७॥
सहस्रांशुरिति प्रोक्ताः क्रमात्षड्जादिदेवताः ।
क्रमादनुष्टुब्गायत्री त्रिष्टुप्च बृहती ततः ॥५८॥
पङ्क्तिरुष्णिक्च जगतीत्याहुश्छन्दांसि सादिषु ।
सरो वीरेऽद्भुते रीद्रे धो बीभत्से भयानके ॥५९॥
कायौ गनी तु करुणे हास्यशृङ्गारयोर्मपौ ।

dhaivata are the progeny of the *ṛṣi*-s² (sages), while *niṣāda* has sprung from the demonic ancestry. (52-53a)

Ṣaḍja, *madhyama* and *pañcama* are brahmins³, *ṛṣabha* and *dhaivata* are known as belonging to the princely class⁴, *niṣāda*

We have already come across two classifications of notes; here are a few others on quite different grounds. The basis for these classifications, as it will be seen, is peculiarly historical and cultural; and there-

2. *Ṛṣi* is usually translated as 'seer' or a sage; that being true, in this context a *ṛṣi* is the recipient of the vision of the *mantra*-s (i. e. vedic hymns).
3. Brahmin is the superior-most caste among the caste Hindus who comprise *brāhmaṇa*-s, *kṣatriya*-s and *vaiśya*-s, roughly conforming to the three classes of Plato's ideal society viz., the philosophers, the rulers and warriors, traders and ploughmen. The fourth caste of *sūdra* comprises slaves and servants of lower class. Actually, the caste system of the Hindus is based on the four functional divisions of the human body viz., the head, the arms, the stomach and the feet.
4. *Kṣatriya*, literally means the warrior (class).

and *gāndhāra* are considered to be in the merchant class⁵, while the notes *antara-gāndhāra* and *kākali-niṣāda* are of the servant class.⁶ (53b-54a)

Their respective colours are red⁷, pale yellow⁸, golden yellow, sparkling white⁹, black, plain yellow and variegated. (54b-55a)

Then I am to describe the lands¹⁰ of their origin. The notes *ṣaḍja* etc., are respectively born in the continents of *Jambū*, *Śāka*, *Kuśa*, *Krauñca*, *Śālmali*, *Śveta* and *Puṣkara*. (55b-56b)

fore, peculiarly Indian in orientation. Moreover, it is not always possible to trace the historical-cum-mythological background in which the classification and its nomenclature were significantly employed. For example, one can hardly say anything about the classification of notes based on their origin from the gods, manes, sages and demons, but one can guess with obvious justification with respect to the other classification based on caste. Incidentally these attributes go to project the individual images of the notes lending them a personality.

Ṣaḍja, *madhyama* and *pañcama* have four *śruti*s each, *ṛṣabha* and *dhaivata* have three, *niṣāda* and *gāndhāra* have two; so obviously they have been evaluated according to their *śruti*-value and assigned the best, the middle and the lower position among the society of *svāra*-s (notes). However, *antara* and *kākali* are treated as outcastes since they are not employed as the fundamental notes, and are therefore, degraded from the position of full-fledged *svāratva* (i.e. the capacity, to be an independent musical note). (52—54a)

There is a state of consciousness arrived at through yogic process in which colour and sound appear in a unified perception. The notes have been assigned particular colours here. These colours may be related to the particular aesthetic effects subsequently attributed to the notes or

5. *Vaiśya*-s include traders, farmers, industrialists and the producers of every type.
6. *Śūdra*-s are those who are not free citizens, who are in the service of other individuals etc.
7. *Padmābha* is interpreted by 'S' as red; literally it means 'shining like a lotus' as rendered by 'K. R.'. However, we do have a red lotus and therefore, the interpretation of 'S' may be taken to be authentic.
8. *Piñjara* is defined by 'S' as slightly yellow or yellowish.
9. *Kunda* is a flower and 'K. R.' identifies it with jasmine. 'S' interprets it as brilliant and white.
10. Places of birth.

The *ṛṣi*-s¹¹ (sages) who discovered the first five¹² notes commencing with *ṣaḍja* etc., respectively are *Vahni*¹³, *Brahmā*¹⁴, *Śaśāṅka*¹⁵, *Lakṣmikānta*¹⁶ and *Nārada*¹⁷, while *dhaivata* and *niṣāda* were discovered by *Tumburū*.¹⁸ (56-57b)

they may even be objective facts that are subjectively perceived; but nothing can authentically be said about it, since even the commentators do not refer to the basis for this tradition. They seem to take these things as a matter of course.

The world was divided into seven *dvīpa*-s according to the puranic geography which is mixed up with mythology. A *dvīpa* is considered to be an independent mass of land separated from the other *dvīpa*-s by an ocean. Thus corresponding to the seven *dvīpa*-s seven oceans are also conceived. These days, the concept of 'dvīpa' is taken as corresponding to that of 'continent', though in technical details it is not necessarily so. (54b—56b)

It will be observed that with respect to every note, or in other words, regarding all the seven notes, certain characteristics are described here, such as, the familyline, the colour, the continent of origin, the seer, the presiding deity, metre and the aesthetic effect. To a critical mind, this scheme is open to searching questions regarding the significance of these individual characteristics as attributed to the different notes. However, only a few general suggestions can be offered here with a view to provide a certain perspective in which the true significance of the scheme may be discovered.

11. *Ṛṣi*-s are considered to be the seers who have an immediate perception of Truth or a fact.
12. That is, *ṣaḍja*, *ṛṣabha* *gāndhāra*, *madhyama* and *pañcama*.
- 13. *Vahni*, literally means fire and alludes to *Agni*, the god of fire.
- 14. *Vedhas* of the text refers to the creative aspect of the Divinity, i. e. *Brahmā*.
- 15. *Śaśāṅka* refers to the 'moon'.
- 16. *Lakṣmikānta* refers to *Viṣṇu* along with his consort *Lakṣmī*.
- 17. *Nārada* is not only a mythological figure, but also one of the authorities in the tradition of the musical arts as mentioned in the beginning of the text (cf. S. Raj, Vol. I, p. 667 for an exhaustive note).
- 18. *Tumburū* is similarly another authority sanctified by musical tradition. Thus *Tumburū*, like *Nārada* is a historical personality. He is described as an expert in divine music *Vāyupurāṇa* 69.47-49, a *gāndhāra* disciple of *Nārada* (*Bhāgavata-purāṇa*, I.13.37-59). *Tumburū* is obviously associated with *Nārada* in the *Purāṇa*-s.

The presiding deities of *ṣaḍja* etc., respectively are Vāhni, Brahmā, Sarasvatī¹⁹, Śiva²⁰, Viṣṇu²¹, Gaṇeśa²² and the Sun²³, and the metres associated with them seriatim are *anuṣṭup*, *gāyatrī*, *trīṣṭup*, *bṛhātī*, *pañkti*, *uṣṇik* and *jagatī*. (57c-59b)

In the vedic tradition, every vedic hymn, i.e., *sūkta* is endowed with a seer, a presiding deity, a metre and so on; and it seems that the present characterisation of notes in the above terms is an extension of this tradition as applied to music. How far its application to music is useful, practical and valid is a question of a detailed and a deeper investigation.

Another obvious fact, as already hinted in this regard is that, all these characteristics go to raise an individual image of each note. One might well find the beginnings of the later *rāga* imagery in the Indian music developing visual images of tonal structures expressed in line and colour in their rudiments.

'S' has observed this phenomenon from quite a different angle which is interesting and thought-provoking. He says that the allocation of the musical notes to seven different continents as the places of their origin and the association of seven seers etc. as well points out the fact that the notes were admitted to be seven only, and not nine, including, for example, the *kakalt-niṣāda* and the *antara-gandhara*. Thus, he raises the question, "why indeed the notes are considered to be seven as a rule?", and suggests the following explanation: The number seven as associated with the musical notes is based probably on the concept of seven supportive tissues (spoken of in the *Ayurveda*) of the body such as

19. Terms such as *Vāhni* and *Brahmā* have already been explained. Sarasvatī is conceived as the goddess of learning, art and literature in the puranic symbology.
- 20,21. Śiva symbolises that aspect of the Hindu trinity which is responsible for the dissolution of the creation and Viṣṇu is the deity responsible for the state of the being in creation, i. e. *sthiti* (sustenance).
22. Gaṇeśa, in the puranic mythology, is the son of Lord Śiva and a god to be propitiated at the commencement of every religious rite, ceremony or any new social or economic undertaking.
23. The Sun, though grammatically correct, is yet a misleading expression, for the presiding deity called Sun, is not inert like the sun, but is the essence of the consciousness embodied by it

The following notes (24-31) are prepared on the basis of the glossary of technical words, appended to Ravi Shankar's "My Music My Life".

ṣaḍja and *ṛṣabha* are employed in the expression of heroism²⁴, wonder²⁵ and wrath²⁶; similarly, *dhaivata* is used for abhorrence²⁷ and terror²⁸, *gāndhāra* and *niṣāda* for

skin, blood, flesh, etc., or on the concept of the seven psycho-physical centres in the body, or as related to the seven continents. *Kakalt-niṣāda* and *antara-gāndhāra* are not taken as notes independently as they are not used as the dominant (tonic) notes. This is supported by a quotation from Dattila to this effect (cf. verses 16 and 17).

It is notable that while all other *ṛṣi-s* from *Vāhni* to *Nārada* are more or less mythological, perhaps with the exception of *Nārada* who is semi-historical, Tumburu is a historical personality and a *gandharva* i.e., a musician. He is said to have discovered *dhaivata* and *niṣāda* (cf. a discussion on the concept of *gāndharva* by Sadagopan-Prem Lata-Brahmaspati in the Indian Music Journal, Oct.-Nov. 1967), where it is said by Brahmaspati that *dhaivata* was discovered by him as an overtone of *madhyama*. It seems that the discovery of *dhaivata* and *niṣāda* attributed to him is historical. (56c-57)

The concept of *devatā* or the presiding deity is once again vedic in origin. It symbolises in concrete terms the abstract idea of a certain classification of human consciousness of that particular age, which was partly functional and objective in its comprehension of the creation and partly subjective, being conditioned by the time-space of the age. For example, the group of sun-gods headed by *Savitṛ* symbolise not only the sun, but in fact the brilliance that characterises the sun and the stars alike. Thus the discovery of the modern astronomy that the stars are as many and more or less powerful suns, is no revelation to those who are acquainted with the vedic symbolism. The Vedas have comprehended the truth of it in their own terms.

It is difficult to relate the application and the extension of this symbolism to the musical notes, as it has already been said, but if any significance has to be discovered, vedic symbolism must provide the key.

24. *Vīra* is expressive of dignity, majesty and glory, courage and heroism.
25. *Adbhuta* is expressive of wonderment, amazement, surprise, exhilaration, and also the mixed feelings of anticipation.
26. *Raudra* depicts anger or excited fury.
27. *Bibhatsa* conveys the sentiment of hate, hostility and disgust which is usually made explicit in dramas.
28. *Bhayanaka* represents the sensation of fear, fright and awe. However, it is difficult to express this in music or a solo-instrument.

pathos²⁹, and *madhyama* and *pañcama* for mirth³⁰ and conjugal love.³¹ (59c-60b)

Similarly, the particular metres that have been associated with the notes are also vedic with the exception of *anuṣṭup* which was introduced into the classical Sanskrit as well. This confirms the view that this characterisation of the tones is a form of the extension of vedic symbolism in the field of musical arts. In this context the value of its application to music needs to be assessed for proper appreciation and understanding.

In this respect 'S' informs that these particulars are used in the worship of the tons when *śalja* etc., are invoked by the seed-syllables spoken of by Mātāṅga. In this invocation specially the seer (*ṛṣi*), the presiding deity (i. e. *devatā*) and the metre are utilised. 'S' gives a long quotation from Mātāṅga, referring to the seed syllables of notes, which need not be reproduced here. This reflects the influence of *Tantra* on the already existing tradition of vedic origin. (57c-59b)

It is said that music is a universal language : perhaps it is so because it gives expression to the content of the heart without interference of thought, and therefore, appeals directly to the heart. Music, as understood in the context of *saṅgīta* was primarily considered to be an accessory art to dramatics and therefore, specific compositions such as particular *grāma-rāga-s* etc., were employed in the depiction of particular sentiments, such as heroism, conjugal love, pathos and so on. Thus the theory of *rasa* or aesthetic delight propounded for explaining the phenomenon of literary and dramatical enjoyment was later applied to music, even while it was taken to be an art by itself. That is how various *rāga-s* are associated with various states of mind leading to the enjoyment of various emotions. In this background the capacity of different tones for producing or arousing particular mental states is further analysed here.

This analysis of the character of tones with reference to their capacity to express more effectively particular sentiments seems not only to be historical and traditional, but also objective and scientific in

29. *Karuṇa* is sad, pathetic, tragic and expresses loneliness, longing and yearning for the absent lover or God.
30. *Hāsyā* is humorous and comic, happy and joyful and producing laughter.
31. *Śṛṅgāra* represents the universal creative force and embodies romantic and erotic feelings, of love between man and woman, the longing for the absent lover, and sensitivity to the beauty of nature.

principle. Cf. Bharata XIX. 38, 39 (K. ed.) as the basis for Śāringadeva to associate particular notes with particular *rasa-s*. However, *svara* in this context refers to the tonic i. e., the first tone of the *mūrccchanā* and implies the *mūrccchanā* based on it. So in fact the *rasa* or the aesthetic delight associated with a particular tone is capable of being produced not by an isolated tone but by the *mūrccchanā* commenced by that tone. This view is supported by the implication of Bharata in the context of *rasa* as associated with *jātis* (N. S. XXIX. 12 K. ed.)

Rasa is generally rendered as aesthetic delight, but that does not elucidate the concept adequately. *Rasa* is that delight which is distinguished from pleasure, from sensation and sensual enjoyment in so far as it is to be derived from a state of mind free from the limitations of personal likes and dislikes. *Rasa* is the delight of a consciousness in which emotion is experienced as a universal affection. *Rasa* is not only contemplation but also a direct experience of beauty and love. The concept of *rasa* is well elucidated as '*brahmānanda-sahodara*', that is, 'delight approximating to universal love'.

The association of *rasa* or an aesthetic mode with the individual notes may not be directly an extension of the vedic tradition, but certainly the concept is derived from *mṛga-saṅgīta* i. e., ancient music, and is therefore, an indirect extension of the vedic tradition. It is worthwhile to remember that the *Sama veda* is, according to some, the source of musical arts.

Another point worthy of notice is that, quite in keeping with the tradition of dramaturgy, only eight of the nine *rasa-s* of the literary theory have been admitted as the basic aesthetic moods in music. *Śānta* i. e., 'serenity' is excluded as being impracticable for the purposes of demonstration. (59c-60b)

अथ चतुर्थं ग्राममूर्च्छनाक्रमतानप्रकरणम्

क. ग्रामः

(i) ग्रामलक्षणम्

ग्रामः स्वरसमूहः स्यान्मूर्च्छनाऽऽदेः समाश्रयः ।

Section 4

Grāma, Mūrccchanā, Krama and Tāna

A. Grāma : 1-8

(i) The definition of grāma : lab

Grāma¹ is a group of tones that forms the basis of mūrccchanā² etc. (lab)

The individual identity of the tones has been established and demonstrated in the previous Section. But, taken individually, the tones do not have any utility, obvious or hidden. So, in order to be effective the tones are organised and presented in a systematic form; and therefore, the author now comes to deal with the basic pattern of tonal organisation and the system of formal presentation related to it. In this Section he deals with grāma which forms the basis of tonal organisation of the system of formal presentation consisting of such concepts as mūrccchanā, the mūrccchanā-series (grāma) and the note-series (tāna) which constitute the important features of ancient Indian music. These concepts will be elaborated in their proper context, but for the present we are concerned with the term 'grāma'.

The word grāma in Sanskrit means a village; but a village in ancient times, and even today was and is more or less a community by itself. So, when the word grāma is adapted in musical parlance, it denotes, not merely a collection of musical notes, but a group of notes

1. Grāma may be understood roughly as a basic scale, but for the sake of accuracy it has not been translated into English.
2. Mūrccchanā, though not translated in this work, like grāma, may otherwise briefly be understood as modified grammic prototype scale.

of relative tonal value organised into an integrated whole comprehending within its fold the span of a saptaka (heptad), a scale of seven notes which serves as the basis for musical compositions.

'K' elucidates that, as in every-day life grāma refers to a group of people, so in musicology grāma refers to a group of svara-s; but, as the word svara refers to the linguistic vowels (vedic and classical) as well as the musical notes, this definition would be too wide. Also in the ordinary connotation of 'svara' is included the threefold vedic accent, viz., udatta, anudatta and svarita. It is in order to preclude such an interpretation as it were that grāma is stated to be such a group of svara-s which forms the basis of mūrccchanā etc. By etc., the author implies mūrccchanā-series, note-series (tāna), ornamentation (alamkāra), graces (gamaka) and the archetypes (jāti) of musical compositions such as grāma-rāga-s and so on.

'S' also offers the same elucidation but with an alternative : probably, as he apprehends, one may not understand the order of tonal value, say in terms of the pitch involved in the grāma, if it is merely taken to be a group of tones. Therefore, this general statement is conditioned in so far as the group of notes has to be so organised, the tones have to be so related to each other, as to serve as the basis for mūrccchanā etc.

'S' is obviously inspired in this view by the Sāṅgīta-samaya-sāra, from which he quotes as under :

"Grāma is a group of notes having ordered śruti-s and constituting mūrccchanā, tāna, jāti and aṁśa."

The emphasis is on the order inherent in the arrangement of the śruti-s, and therefore the svara-s. It is this order in the tonal value of the notes which distinguishes it from an indistinct jumble of sounds. Actually this point is implied in the text as one can clearly see it, though 'K' has emphasised one aspect of it and 'S' has stressed the other. Kumbha's definition of grāma seems to be the most appropriate :

"When the svara-s in consonance, having śruti-s in due order, serve as the basis of mūrccchanā etc., they are said to constitute a grāma". (S. Raj. I. 2. 3. 9-10)

That the tones of the grāma should be so related as to be in consonance with each other, makes this definition more explicit, clear and precise. Also, this definition gives due importance to śruti-s apart from the svara-s.

M. S. Ramaswami Aiyar in his paper entitled, "The Question of Grāma-s" (pub. J. R. A. S., 1936, p. 632) explains grāma in these words :

(ii) द्वौ ग्रामौ (धरातले)

तौ द्वौ धरातले तत्र स्यात्षड्जग्राम आदिमः ॥१॥
द्वितीयो मध्यमग्रामस्तयोर्लक्षणमुच्यते ।

(ii) The two *grāma*-s: 1c—2b

Two *grāma*-s are prevalent in this world¹, the first is *ṣaḍja-grāma* and the second is *madhyama-grāma*; they are defined in the following terms. (1c—2b)

"A *grāma* was an unsingable group scale, so to speak, consisting of *śuddha-vikṣta svāra*-s collected together and preserved, as such, for the purpose of selecting, from that group scale, any desired set of seven notes with a *grāha* or starting point which set, when sung in the natural order of ascent and descent was called *mūrccanā* and which, when a harmonic individuality was established with the help of *aiśā*, *nyāsa*, *vādī* and *sambādī* etc., took the name of *jāti*²." Thus, it would seem that the concept of *grāma* is deeply involved in other concepts of the *grāma-mūrccanā* system; and would therefore become more and more clear as we go on comprehending them all as a part and parcel of a single scheme.

Grāma has been defined primarily to be a group of tones: therefore, the question is, why not have seven *grāma*-s, one by the name of each tone?, and why only two viz., *ṣaḍja-grāma* and *madhyama-grāma*? 'K' suggests that since the tones are employed in two forms viz., the standard or unmodified and the modified, there are only two *grāma*-s each to serve as the basis for the former and the latter i.e., the *ṣaḍja-grāma* for the standard tones and the *madhyama-grāma* for the modified tones. However relevant this explanation may be, it can hardly be said to be adequate; there are many other factors of musical practice that make any other *grāma* impracticable, e.g., the principle that the tones of a *grāma* should be in consonance with each other implies that the consonant tones have to be of the same *śruti*-measure: and this implication cannot probably be realised elsewhere as accurately as in the *ṣaḍja* and the *madhyama-grāma*-s.

3. As quoted by Nijenhuis in her *Dattilam*, p. 104.

1. *Dharātale*, literally means, 'on the face of the earth', i.e., in the mortal world, for *gāndhāra-grāma* is said to be prevalent in the heaven or among the gods.

(iii) षड्जमध्यमग्रामयोर्लक्षणम्

षड्जग्रामः पञ्चमे स्वचतुर्थश्रुतिसंस्थिते ॥२॥
स्वोपान्त्यश्रुतिसंस्थेऽस्मिन्मध्यमग्राम इष्यते ।

(iii) The definition of the *ṣaḍja-grāma* and the *madhyama-grāma*: 2c—3b

Pañcama, if located on its¹ fourth *śruti* makes for the *ṣaḍja-grāma*; but if established on the *śruti* immediately preceding² it, makes for the *madhyama-grāma*. Alternatively³, *dhaivata* of the *ṣaḍja-grāma* is of three *śruti*-s; while in *madhyama-grāma* it has four *śruti*-s. (2c—3b)

The author is now suggesting the means of distinguishing the *ṣaḍja-grāma* from the *madhyama-grāma* and he says that *pañcama* is the crucial note for this purpose. In the *ṣaḍja-grāma* *pañcama* is located on the seventeenth *śruti* and consequently *dhaivata* has three *śruti*-s, but in *madhyama-grāma*, *pañcama* is located on the sixteenth *śruti* and consequently one of the *śruti*-s is spared to *dhaivata* which sustains four *śruti*-s. Thus the *grāma*-s can be distinguished either by the position and the extent of *pañcama* or of *dhaivata*.

Incidentally, it is pointed out by 'S' that, whereas the *pañcama* of the *ṣaḍja-grāma* is unmodifiable, the *pañcama* of the *madhyama-grāma* is essentially a modified note. Even though there are other notes in *ṣaḍja-grāma* such as *ṣaḍja* etc., that too are constant, yet *pañcama* presents a contrast and that is why it becomes more significant.

1. *Sva* the use of this possessive pronoun in the terminology of Śarāṅgadeva is quite significant; for, it excludes the *śruti*-s gained by the tones in their modified state. The fourth *śruti* of *pañcama* is the seventeenth *śruti* of the scale identified by 'K' as *ālāpint* of the *karuṇā jāti* (class).
2. *Soopāntya*—of the text literally means "its penultimate". Thus, the expression refers to the *śruti* immediately preceding the fourth *śruti* of *pañcama*, i.e., the third *śruti*, or the sixteenth of the scale, identified by 'K' as *sandhānt* of the *āyata* class.
3. 'S' points out that the use of the indeclinable *tu* in the text shows that the author prefers to stick to the first distinction for distinguishing the *grāma*-s, while he mentions the other alternative on behalf of other musicologists. Indeed the distinction of *dhaivata* is incidental to that of *pañcama*.

(iv) गान्धारग्रामः

यद्वा धस्त्रिभ्रुतिः षड्जे मध्यमे तु चतुःभ्रुतिः ॥३॥
रिमयोः श्रुतिमेकंकां गान्धारश्चेत्समाश्रितः ।
पश्रुति धो निषादस्तु घश्रुति सश्रुति श्रितः ॥४॥
गान्धारग्राममाचष्ट तदा तं नारदो मुनिः ।
प्रवर्तते स्वर्गलोके ग्रामोऽसौ न महीतले ॥५॥

(iv) The *gāndhāra-grāma* : 4-5

If *gāndhāra* takes one *śruti* each from *ṣaḥbha* and *madhyama*, *dhaivata* takes one *śruti* from *pañcama*, and *niṣāda* takes one *śruti* each from *dhaivata* and *ṣaḍja*, it becomes *gāndhāra-grāma* as declared by the sage Nārada¹. This *grāma* is prevalent in the heaven², not in this world. (4-5)

In the tradition of Bharata, which Mātāṅga seems to follow, only two *grāma-s*, viz., the *ṣaḍja-grāma* and the *madhyama-grāma* are recognised (cf. Br. D. 93). However Nārada, of uncertain chronology, refers to a third *grāma* called *gāndhāra-grāma* which, our author after Mātāṅga declares, was meant to be used exclusively by gods and not by human beings. This *grāma* is derived by him from the *ṣaḍja-grāma* as described in the text and accordingly can graphically be demonstrated as under :

The three *grāma-s*

| Name of the <i>grāma</i> | Tones with number of <i>śruti-s</i> | | | | | | |
|--------------------------|-------------------------------------|------|-------|-------|------|-------|------|
| <i>Ṣaḍja-grāma</i> | sa/4 | ri/3 | ga/2 | ma/4 | pa/4 | dha/3 | ni/2 |
| <i>Madhyama-grāma</i> | ma/4 | pa/3 | dha/4 | ni/2 | sa/4 | ri/3 | ga/2 |
| <i>Gāndhāra-grāma</i> | ga/4 | ma/3 | pa/3 | dha/3 | ni/4 | sa/3 | ri/2 |

(Chart II)

Dhaivata takes one *śruti* from *pañcama* (of the *ṣaḍja-grāma*) and yields one *śruti* to *niṣāda*, retaining in effect the same number of *śruti-s*.

1. Nārada is a very ancient name, known to Veda as the *brahmaṛṣi* and the *Puruṣas* as *dvarṣi*. He is associated with Bharata in the very first performance of drama (N. S. Kashi ed, 5.32). Bharata mentions Nārada as an authority on *gāndhāra* (N. S. Kashi ed. 32.484). At least five personalities are discerned by the name of Nārada including the authors of *Nāradya-śikṣā* and *Saṅgīta-makaranda* (cf. S. Raj, Vol. I, pp. 667-668 for a detailed description). In short, Nārada is an ancient authority on music.

2. The heaven in the Hindu mythology, is the abode of gods; those who accumulate merit by good deeds, are born as gods in heaven and as the merit earned by them is exhausted, they are again reborn as mortals in noble families. On the other hand, the gods are considered

(v) ग्रामत्रयस्य नामस्वराणां वैशिष्ट्यम्

षड्जः प्रधानमाद्यत्वादमात्याधिक्यतस्तथा ।
ग्रामे स्यादविलोपित्वान्मध्यमस्तु पुरःसरः ॥६॥
एतत्कुलप्रसूतत्वाद् गन्धारोऽप्यग्रणीदिवि ।

(v) Justification for the three *grāma-s*: 6-7b

Ṣaḍja is the prime tone¹, for being in the first position and also for having more ministers² in the *grāma*; *madhyama* too is in the fore-front, because it cannot be omitted. Being a descendant of the same family, even *gāndhāra* is the prominent note in the heaven. (6-b)

Now, the question is why the three *grāma-s* are named particularly after *ṣaḍja*, *madhyama* and *gāndhāra*, and not after any other notes such as *pañcama* or *niṣāda* and so on. The author explains that it is because *ṣaḍja* is the most prominent tone; and that for two reasons viz., it is the fundamental note and also it is in consonance with more notes than the other i.e., with *pañcama* and *madhyama*; whereas other tones have only one consonant.

Madhyama is also an important note since it cannot be omitted while composing standard (*suddha*), hexatonic and pentatonic note-series (*tāna-s*). 'K' also suggests another reason. *Madhyama* cannot be omitted because the three notes preceding it are quite in balance with the three notes succeeding it, and have a certain consonance in-between them, but *madhyama* being centrally situated is isolated from that sort of relationship and therefore serves as the boundary line between the two sets of notes, making itself in-omissible. 'S' quotes Dattila regarding the inomissibility of *madhyama* to the following effect.

"*Pañcama* in the *madhyama-grāma*, and *dhaivata* in the *ṣaḍja-grāma* are inomissible, but however *madhyama* is so everywhere."

Gāndhāra-grāma is so named because it is a descendent of the same family of gods to which *ṣaḍja* and *madhyama* belong and is thereby the prominent note in heaven, where it is said to be prevalent. 'S' quotes Mātāṅga in support of this reasoning.

"Why indeed this particular nomenclature *ṣaḍja* and *madhyama-grāma*? To explain, they have been assigned *grāma* names because of their being extraordinary, and that is because of their being born in the family of gods." (cf. I.3.52ab ante)

1. *Pradhāna* literally means 'the chief', in other words, the most important tone.
2. The consonant tones have been referred to as ministers (cf. 3.50 ante).

(vi) ग्रामाणां देवाः।

क्रमाद् ग्रामत्रये देवा ब्रह्मविष्णुमहेश्वराः ॥७॥

(vi) The presiding deities of the *grāma-s* : 7cd

The presiding deity in each of the three *grāma-s* respectively¹ is Brahmā, Viṣṇu and Śiva.² (7cd)

(vii) ग्रामाणां गानकालनियमः।

हेमन्तशीष्मवर्षासु गतव्यास्ते यथाक्रमम् ।
पूर्वाह्निकाले मध्याह्ने ऽपराह्णे ऽभ्युदयार्थिभिः ॥८॥

(vii) The periods of time as related to the *grāma-s* : 8

They¹ are to be sung by those who are desirous of prosperity in the forenoon², mid-day and in the afternoon, in the winter, summer and in the rainy season respectively. (8)

The expression “*gataṅyāste*” is quite significant and also thought-provoking. The pronoun ‘they’ (*te*) obviously stands for the three *grāma-s*; and therefore two interesting questions arise in this particular context : (i) are the *grāma-s* meant to be sung ? (ii) Is singing to be restricted to winter in case of the *ṣaḍja-grāma*, to summer in case of the *madhyama-grāma* and to rainy season in case of the *gāndhāra-grāma* ? and if so, the *gāndhāra-grāma* cannot be used on earth as it is prevalent in the heaven only; then how should one sing in the rainy season ? Moreover, the *grāma*-wise distribution of the day into three parts presents another problem on the same lines.

The *grāma-s*, it is generally held, were not meant to be sung; but what is probably collectively referred to in the text by way of *grāma*, is the various types of melodic patterns or musical forms set in the pattern of the particular *grāma-s*, such as *jāti-s* and *rāga-s*. It is interesting to find ‘S’ quoting Mātāṅga with reference to the function of *grāma*

1. That is, in the *ṣaḍja*, *madhyama* and *gāndhāra-grāma*, in respective order.
2. The appellation *Maheśvara* (*Mahā+īśvara*—the great God) is used in the text.
1. That is, the three *grāma-s*.
2. *Pūrvāhṇe*, literally means ‘in the anterior period’ with reference to the middle period of the day, i. e., the mid-day. Thus, we can also divide as forenoon, noon and afternoon.

in this context; it is said—“the purpose of *grāma* is to regulate the organisation of *svāra*, *śruti*, *mūrchanā*, *tāna*, *jāti* and *rāga*.” Obviously, these are the main factors of the ancient Indian music known as the *grāma-mūrchanā-jāti* system.

Thus, the expression ‘they are to be sung’, refers not merely to the basic scales of the *grāma-s*, but all those melodic structures or musical forms that are set into their basic pattern.

Accordingly, the text is suggestive of another function of the three *grāma-s* viz., their individual suitability to a particular season. The traditional six Indian seasons have been compressed into three for functional purposes; and on this basis one is led to infer that even *gāndhāra-grāma* might have been prevalent sometimes in the forgotten past. All that the text implies is that the three *grāma-s* are more suitable for the three respective seasons and the divisions for the day, but not that they are exclusively to be employed on restricted basis.

ख. मूर्च्छनाः क्रमाश्च

(i) मूर्च्छनालक्षणम्

क्रमात्स्वराणां सप्तानामारोहश्चावरोहणम् ।
मूर्च्छनेत्युच्यते ग्रामद्वये ताः सप्त सप्त च ॥९॥

The *mūrchanā-s* and *krama-s* : 9-26b.

(i) The definition of *mūrchanā* : 9

The ascending and the descending movement of the seven notes in successive order is called *mūrchanā*. There¹ — are seven *mūrchanā-s* in each of the two² *grāma-s*. (9)

The concept of *mūrchanā* is quite important in this system of music, and should therefore be understood quite adequately.

The word ‘*mūrchanā*’ is derived by Mātāṅga from the Sanskrit root *mūrcc*—to faint or to increase. Thus he defined *mūrchanā* as : “*mūrccyate yenā rāgo hi mūrchanā-ityabhisañjñīta*” i. e., “That by which the *rāga* develops is called *mūrchanā*.” Basically it is the movement, ascending as well as descending of the seven notes which is called *mūrchanā* in the text. However, ‘S’ quoting Mātāṅga in his support

1. That is, in this world excluding heaven.
2. That is, the *ṣaḍja-grāma* and the *madhyama-grāma*.

makes it clear that it is in fact the seven notes arranged in regular order of ascent and descent which stand to be called as *mūrchanā* i.e., in other words, the action of ascent and descent, that is, the tonal movement is not to be called *mūrchanā*, as it is said by Mātāṅga :

“The unit of seven notes in regular order of ascent and descent is known to be the referent of the word *mūrchanā* by the experts of the subject.”

Obviously a very subtle distinction has been made; for indeed, it is the seven notes in the ascending or the descending movement in their successive order that constitute *mūrchanā*. The movement is quite inherent in the tones if they are to form a *mūrchanā*. Thus, the distinction is rather formal and may be construed as helpful in placing the emphasis rightly on the tones, rather than on their movement. Ravi Shankar defines *mūrchanā* as, “scale-wise progressions in descending motion from the fundamental notes.” (cf. Glossary of Technical Words ‘My Music, My Life’).

The function of *mūrchanā* is to develop, to enlarge and to spread the *rāga*. Obviously, it is not possible to restrict the arrangement of *mūrchanā-s* to any one register, and as pointed out by ‘K’ in order to show their range to be co-extensive with the three registers, Mātāṅga, speaks of *mūrchanā-s* of twelve notes as well, but this seems unnecessary in view of the two *grāma-s* being used conjointly, covering the three registers. Kumbhā mentions Kohala and Nandikeśvara as supporting Mātāṅga in his view, but he totally rejects it by himself as technically uncalled for (cf. S. Raj. 2.1.1. 352-357).

Thus it is settled, as per the text that there are seven *mūrchanā-s* in each *grāma*.

(ii) षड्जमध्यमग्रामस्थमूर्च्छनानां संज्ञाः

षड्जे तूत्तरमन्द्रा ऽऽदौ रजनी चोत्तरायता ।

शुद्धषड्जा मत्सरीकृदश्वक्रान्ता ऽभिरुद्गता ॥१०॥

मध्यमे स्यात्तु सौवीरी हारिणाश्वा ततः परम् ।

स्यात्कलोपनता शुद्धमध्या मार्गी च पौरवी ॥११॥

हृष्यकेति,

(ii) The names of the *mūrchanā-s* of the *ṣaḍja* and *madhyama-grāma-s* : 10-12a

The first in *ṣaḍja-grāma* is *uttaramandrā* which is followed

abhirudgatā. *Madhyama-grāma* has *sauvīrī*, *hāriṇāśvā*, *kalopanatā*, *śuddhamadhyā*, *mārgī*, *pauravī* and *hṛṣyākā*. (10-12a)

The names of these fourteen *mūrchanā-s* seem to be quite significant and some scholars have even ventured to speculate regarding their literal signification as related to their musical content and aesthetic effect; for example, the name of the first *mūrchanā* of the *ṣaḍja-grāma* *attaramandrā*, literally means, “the one that follows the *mandra* i. e., the lower (heptad)” and this exactly tallies with its tonal position, since it commences with the *ṣaḍja* of the middle heptad.

Now, the question (as raised by ‘K’) is, ‘Why should the *mūrchanā-s* of the *ṣaḍja-grāma* begin with the *ṣaḍja* of the middle register?’ i. e., why not with some other note of, say, the lower register? And ‘K’ explains, “that is so, because Bharata has ordained it that way,” quoting him, “*mūrchanā* should be demonstrated on *vīṇā* with the tone *madhyama* (*madhyama svareṇa vaiṇavena mūrchanā-nirdeśaḥ*)”. And then ‘K’ goes on to quote Mātāṅga in his interpretation of Bharata : “*Mūrchanā* should commence with the middle register in order to establish the lower and the higher registers (*madhya-saptakena mūrchanā-nirdeśaḥ kāryo mandratārasidhyartham*).”

As far as the literal meaning is concerned, Bharata has spoken of *madhyama* as the tone and not of *madhya saptaka*. However, Bharata also lays down *uttaramandrā* as the first *mūrchanā*, “*ādya-hyuttaramandrā syād* etc.” (cf. N. S. Ka. ed. XXVIII. 27). So in fact Śārṅgadeva follows the tradition of Bharata and Mātāṅga. Mātāṅga however, seems to have correctly elucidated Bharata, why *uttaramandrā* is taken as the first *mūrchanā*.

(iii) मूर्च्छनानामारम्भकस्वराः

, अथ तासां तु लक्षणं प्रतिपाद्यते ।

मध्यस्थानस्थषड्जेन मूर्च्छना ऽऽरभ्यते ऽग्निमा ॥१२॥

(iii) The tonal form of the *mūrchanā-s* : 12b-15

Their distinguishing character¹ is (now) being outlined.² The first *mūrchanā* is commenced with the *ṣaḍja* of

‘S’ reproduces the *mūrchanā-s* (in the ascending form) of the two *grāma-s* in accordance with the text as under :

1. *Lakṣaṇa*, literally means a characteristic mark.
2. Lit. ‘established’ by demonstration.

अधस्तनेनिषादाद्यैः षडन्या मूर्च्छनाः क्रमात् ।

मध्यमध्यममारभ्य सौवीरी मूर्च्छना भवेत् ॥१३॥

षडन्यास्तदधोऽधःस्थस्वरानारभ्य तु क्रमात् ।

षड्जस्थानस्थितैर्याद्यै रजन्याद्याः परे विदुः ॥१४॥

हारिणाश्चादिका गाद्यैर्मध्यमस्थानसंस्थितैः ।

षड्जादीन्मध्यमादींश्च तदूर्ध्वं सारयेत्क्रमात् ॥१५॥

the middle register; and the six other *mūrccanā-s* with *niṣāda* etc. (placed) one below another in regular order. *Sauvīrī* commences with the *madhyama* of the middle register, and the six others⁸ with the notes coming one below another in successive order. (12b-14b)

According to another version, *rajanī* etc.⁴ are formed by *niṣāda* etc.⁵ that are placed on *ṣaḍja*⁶ and *hāriṇāsvā* etc.⁷

Mūrccanā-s of the two *grāma-s*

| <i>Ṣaḍja-grāma</i> | | | <i>Madhyama-grāma</i> | | |
|--------------------|---------------------------|-----------------------|-----------------------|----------------------------|-----------------------|
| No. | Name | Tonal form | No. | Name | Tonal form |
| 1. | <i>Uttara- mandrā</i> | sa ri ga ma pa dha ni | 1. | <i>Sauvīrī</i> | ma pa dha ni sa ri ga |
| 2. | <i>Rajanī</i> | ni sa ri ga ma pa dha | 2. | <i>Hāriṇāsvā</i> | ga ma pa dha ni sa ri |
| 3. | <i>Uttarāyatā</i> | dha ni sa ri ga ma pa | 3. | <i>Kalopanatā</i> | ri ga ma pa dha ni sa |
| 4. | <i>Śuddha- ṣaḍja</i> | pa dha ni sa ri ga ma | 4. | <i>Śuddha- madhyā*</i> | sa ri ga ma pa dha ni |
| 5. | <i>Matsarīkṣī</i> | ma pa dha ni sa ri ga | 5. | <i>Mārgī*</i> | ni sa ri ga ma pa dha |
| 6. | <i>Aśvakraṇṭā</i> | ga ma pa dha ni sa ri | 6. | <i>Pauravī*</i> | dha ni sa ri ga ma pa |
| 7. | <i>Abhirudgatā</i> | ri ga ma pa dha ni sa | 7. | <i>Hṛṣyaka*</i> | pa dha ni sa ri ga ma |

(Chart 12)

* The tonal form of *śuddha-madhyā*, *mārgī*, *pauravī* and *hṛṣyaka* may appear to be identical with that of *uttaramandrā*, *rajanī*, *uttarāyatā* and *śuddha-ṣaḍja* respectively, due to the same tones employed; but

3. That is, other *mūrccanā-s*.

4. That is, from *rajanī*, *uttarāyatā* etc. onwards upto *abhirudgatā*.

5. That is, *ni dha pa* backwards upto *ri*.

6. *Ṣaḍja* of the middle register.

7. That is, from *hāriṇāsvā*, *kalopanatā* onwards upto *hṛṣyaka*.

are formed by *gāndhāra* etc.⁸ that are placed on *madhyama*; the subsequent notes *ṣaḍja* etc.⁹ and *madhyama* etc.¹⁰ respectively may be tuned accordingly. (14c-15)

actually it is not so, because the *pañcama* of the *madhyama-grāma* is of three *śruti-s*, whereas in the *ṣaḍja-grāma* it has four; therefore, these *mūrccanā-s*, though similar in appearance, are yet different in content. Signs . and 1 (not used here) are respectively indicative of the lower and the higher register. (12b-14b)

Then the author describes the same phenomenon of the formation of *mūrccanā-s* in quite a different way. The phenomenon remains the same, only the technique of relating it differs.

As already explained in the previous verse, by the first method the *mūrccanā-s* are formed by placing their initial notes one below the other. This involves a change of range (*sthāna*) in the same *vīṇā* which has to be *mattakokila*, that is provided with 21 strings and has the range of three registers (cf. Ab. Bh., G. O. S. Vol. IV, p. 122). By this method the *mūrccanā-s* can be worked out as under, either in the range of the lower and the middle registers, or the middle or the higher registers. While in the second method explained above, the *mūrccanā-s* are obtained in the same register, but every time the strings have to be tuned accordingly. Chart 13 (a & b) illustrates the first method and Chart 13 (c) illustrates the second.

Formation of *mūrccanā-s* of the *ṣaḍja-grāma*

Method I (a)

| Name of the <i>mūrccanā</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|-----------------------------|----|----|----|----|-----|-----|-----|-----|----|----|----|----|-----|----|
| <i>Uttaramandrā</i> | | | | | | | | | | | | | | |
| <i>Rajanī</i> | | | | | | | ni | sa | ri | ga | ma | pa | dha | ni |
| <i>Uttarāyatā</i> | | | | | | | dha | ni | sa | ri | ga | ma | pa | |
| <i>Śuddha-ṣaḍja</i> | | | | | | | pa | dha | ni | sa | ri | ga | ma | |
| <i>Matsarīkṣī</i> | | | | | ma | pa | dha | ni | sa | ri | ga | | | |
| <i>Aśvakraṇṭā</i> | | | ga | ma | pa | dha | ni | sa | ri | | | | | |
| <i>Abhirudgatā</i> | ri | ga | ma | pa | dha | ni | sa | | | | | | | |

Chart 13 (a)

8. That is, from *ga ri* backwards upto *pa*.

9. That is, *ṣaḍja* and the higher notes.

10. That is, *madhyama* and the higher notes.

Formation of *mūrcchanā-s* of the *ṣaḍja-grāma*

Method I (b)

| Name of the <i>mūrcchanā</i> | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|------------------------------|----|----|----|----|-----|-----|----|----|----|----|----|----|-----|----|
| <i>Uttaramandra</i> | sa | ri | ga | ma | pa | dha | ni | | | | | | | |
| <i>Rajant</i> | | | | | | | ni | sa | ri | ga | ma | pa | dha | |
| <i>Uttarayata</i> | | | | | | dha | ni | sa | ri | ga | ma | pa | | |
| <i>Śuddha-ṣaḍja</i> | | | | | pa | dha | ni | sa | ri | ga | ma | | | |
| <i>Matsarikṣṭā</i> | | | | ma | pa | dha | ni | sa | ri | ga | | | | |
| <i>Aśvakraṅtā</i> | | ga | ma | pa | dha | ni | sa | ri | | | | | | |
| <i>Abhirudgatā</i> | ri | ga | ma | pa | dha | ni | sa | | | | | | | |

Chart 13 (b)

Formation of *mūrcchanā-s* of the *ṣaḍja-grāma*

Method II

| Name of the <i>mūrcchanā</i> | Notes and their <i>śruti</i> -intervals | | | | | | | | | | | | | |
|------------------------------|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|---|-----|
| <i>Uttaramandra</i> | — | sa | — | ri | — | ga | — | ma | — | pa | — | dha | — | ni |
| | 4 | | 3 | | 2 | | 4 | | 4 | | 3 | | 2 | |
| <i>Rajant</i> | — | ni | — | sa | — | ri | — | ga | — | ma | — | pa | — | dha |
| | 2 | | 4 | | 3 | | 2 | | 4 | | 4 | | 3 | |
| <i>Uttarayata</i> | — | dha | — | ni | — | sa | — | ri | — | ga | — | ma | — | pa |
| | 3 | | 2 | | 4 | | 3 | | 2 | | 4 | | 4 | |
| <i>Śuddha-ṣaḍja</i> | — | pa | — | dha | — | ni | — | sa | — | ri | — | ga | — | ma |
| | 4 | | 3 | | 2 | | 4 | | 3 | | 2 | | 4 | |
| <i>Matsarikṣṭā</i> | — | ma | — | pa | — | dha | — | ni | — | sa | — | ri | — | ga |
| | 4 | | 4 | | 3 | | 2 | | 4 | | 3 | | 2 | |
| <i>Aśvakraṅtā</i> | — | ga | — | ma | — | pa | — | dha | — | ni | — | sa | — | ri |
| | 2 | | 4 | | 4 | | 3 | | 2 | | 4 | | 3 | |
| <i>Abhirudgatā</i> | — | ri | — | ga | — | ma | — | pa | — | dha | — | ni | — | sa |
| | 3 | | 2 | | 4 | | 4 | | 3 | | 2 | | 4 | |

Chart 13 (c)

These illustrations clearly make out the difference between the two methods of *mūrcchanā*-formation. The one (I) involves change of range and therefore requires the *mat-kokilā vṛṇa* and the other is done in the same register and involves tuning of the *vṛṇa* according to the *mūrcchanā-s*.

(14c-15)

it is not def. yet the all notes

(iv) मूर्च्छना-भेदाः

चतुर्धा ताः पृथक् शुद्धाः काकलीकलितास्तथा ।

सान्तरास्तद्द्वयोपेताः षट्पञ्चाशदितोरिताः ॥१६॥

श्रुतिद्वयं चैत्षड्जस्य निषादः संश्रयेत्तदा ।

स काकली, मध्यमस्य गान्धारस्वन्तरः स्वरः ॥१७॥

(iv) The classification of the *mūrcchanā-s* : 16-17

These are fourfold, viz. *śuddhā*¹ (standard), *kākali*-inclusive², *antara*-inclusive³ and inclusive of both⁴; thus, they are

The *mūrcchanā-s* are classified on the basis of their being inclusive or exclusive of either of the two notes called *kākali* and *antara* or both of them. First of all the author defines these two terms. He says, if *niṣāda* absorbs two *śruti-s* of *ṣaḍja* and is thus established on the 24th (22+2) or the 2nd *śruti* (of the next register), being in effect constituted of four *śruti-s*, then it is called *kākali niṣāda* and also merely as *kākali* for the sake of convenience. Similarly, if *gāndhāra* incorporates two *śruti-s* of *madhyama* and is thereafter established on the 2nd *śruti* of *madhyama*, being constituted in effect of four *śruti-s*, then it is called *antara-gāndhāra* or merely as *antara* for the sake of convenience. Both these notes are considered to be the modified forms of *niṣāda* and *gāndhāra* respectively and are not counted as independent notes by themselves.

Now, he says there are four classes of *mūrcchanā-s*, viz. (i) those that are composed exclusively of the standard notes, i. e. the *śuddha-svara-s*, (ii) those incorporating *kākali-niṣāda*, (iii) those incorporating

1. *Śuddha* literally means pure or natural, the term is suggestive of the fact that the *mūrcchanā-s* of this type are composed of tones in the standard *śruti*-relation i. e., 4-3-2-4-4-3-2 or 4-7-9-13-17-20-22.
2. *Kākali*-inclusive is the one that takes *kākali-niṣāda* instead of *śuddha-niṣāda*, the *śruti*-relation being 4-7-9-13-17-20-2 (i. e. 24) taking 2 *śruti-s* from the *sa* of the next register.
3. *Antara* inclusive is that which takes *antara-gāndhāra* instead of *śuddha-gāndhāra*, the *śruti*-relation being 4-7-11-13-17-20-22.
4. The fourth type is such that it takes *antara-gāndhāra* and *kākali niṣāda* instead of *śuddha ga* and *ni*; the *śruti*-relation being 4-7-11-13-17-20-2 (i. e. 24).

However, the *śruti* relations indicated here pertain to the *ṣaḍja-grāma*; in *madhyama grāma pa* will be on the 16th *śruti* instead of the 17th.

यष्टि मूर्च्छना

known to be fiftysix in all. If *niṣāda* takes two *śruti*-s of *ṣaḍja*, it becomes *kākali*⁵, but if *gāndhāra* appropriates two *śruti*-s of *madhyama* it becomes *antara*.⁶ (16-17)

antara gāndhāra and (iv) those incorporating both *kākali* and *antara*. Each of the two *grāma*-s has seven *mūrchanā*-s, so both have fourteen; and then, each of the fourteen is of four types described above. Thus (14×4=56), altogether we get fiftysix *mūrchanā*-s. The four types of the *mūrchanā*-s of the *ṣaḍja-grāma* are illustrated as under, along with their *śruti*-relations.

The four types of *mūrchanā*-s

| Name of the type | sa | ri | ga | ma | pa | dha | ni | Remarks |
|---|----|----|----|----|----|-----|-------------|--|
| 1. <i>Śuddha</i> (standard) | 4 | 7 | 9 | 13 | 17 | 20 | 22 | |
| 2. <i>Sakakali</i> (<i>kakali</i> -inclusive) | 4 | 7 | 9 | 13 | 17 | 20 | •2 or 24 | •2 <i>śruti</i> -s from the next register |
| 3. <i>Santarā</i> (<i>antara</i> -inclusive) | 4 | 7 | 11 | 13 | 17 | 20 | 22 | |
| 4. <i>Ubhayagata</i> (inclusive of both) | 4 | 7 | 11 | 13 | 17 | 20 | •2 or 24 | • —do— |

(Chart 14)

This illustrates the varieties of the first *mūrchanā* only.

56
mūrchanā
or
heṭṭo

5. The short form of *kakali-niṣāda*.
6. The short form of *antara gāndhāra*.

(v) मूर्च्छनासङ्ख्या-परिज्ञानोपायः

यस्यां यावतिथी षड्जमध्यमौ ग्रामयोः क्रमात् ।

मूर्च्छना तावतिथ्येव सा निःशङ्केन कीर्तिता ॥१८॥

(v) The method of indicating the serial number of a *mūrchanā* : 18

In the two *grāma*-s the serial number of a *mūrchanā*, as pointed out by Śārṅgadeva¹, is that which corresponds to the position of *ṣaḍja* or *madhyama* in it². (18)

This is rather a very faithful rendering of the text which in fact implies that, since there are fourteen *mūrchanā*-s in the two *grāma*-s, seven in each, the question is how to recognise a particular *mūrchanā* in terms of its being first, second, third, and so on. The author here points out that the serial number of a *mūrchanā* is indicated by the position of *ṣaḍja* or *madhyama* in it in the *ṣaḍja* or *madhyama grāma* as the case may be. For instance, in *uttaramandra* a *mūrchanā* of the *ṣaḍja-grāma* 'sa ri ga ma pa dha ni' the position of the *sa* is first, and therefore it indicates that *uttaramandra* is the first *mūrchanā* of the *ṣaḍja-grāma*. Similarly *ṣaḍja* being the sixth note in *a'cakranta*, it indicates it to be the sixth *mūrchanā*. Also in the case of *madhyama-grāma*, *hāriḥaśva* for instance has *madhyama* in the second position (ga ma pa dha ni sa ri) and is thereby the second *mūrchanā* of the *madhyama-grāma*.

(vi) मूर्च्छना-क्रमाः, तेषां सङ्ख्या च

प्रथमादिस्वरारम्भादेकेका सप्तधा भवेत् ।

तासूचचार्यान्त्यस्वरांस्तान्पूर्वानुच्चारयेत्क्रमात् ॥१९॥

ते क्रमास्तेषु संख्या स्याद् द्वानवत्या शतत्रयम् ।

(vi) The *mūrchanā*-series (*krama*-s) and their number: 19-20b.

Each one of them¹ becomes sevenfold by commencing with the first note and so on². In these³, the last notes having been sung, initial notes may be sung in their respective

1. *Niṣāṅka* is the appellation of Śārṅgadeva.
2. Cf. Dattilam 21.
1. 'Them' refers to the fiftysix *mūrchanā*-s of four types described in verse 16.
2. That is, from the first to the seventh note.
- 3.&4. 'These' refers to the seven *mūrchanā*-series, formed as per

order. These⁴ are *mūrchanā*-series (*krama-s*) and their number is three hundred and ninetytwo. (19-20b).

The purport is that each one of the fiftysix *mūrchanā-s* spoken of above, has seven series of *mūrchanā-s* of its own which are formed by commencing the *mūrchanā* with the first, the second, the third, the fourth, the fifth, the sixth and the seventh note, keeping the *śruti*-value of the notes unaltered. Now, 'S' poses the problem that, if the *mūrchanā* is commenced with the second note and so on, how can it have seven notes in it? The text resolves the difficulty by suggesting that the last notes may be sung in the first instance and the preceding notes may be sung in their respective order. Moreover, it is notable that in this scheme the basic scale is not altered and so the *mūrchanā* does not change, what changes is the order of notes in it, and actually each *mūrchanā* has seven possibilities of such a variety in the order. These series are therefore called *krama-s*, literally 'orders'; they are useful in the computation of *kūṭātāna-s* (permutational note-series). The series of *mūrchanā-s* are therefore sub-varieties of the *mūrchanā-s* and are distinguished from the *mūrchanā-s* proper by the fact that they are formed only in the ascending order of notes, whereas the *mūrchanā-s* are formed in the descending order as well. For instance *uttaramandrā*, the first *mūrchanā*, of the *śaḍja-grāma* is *sa ri ga ma pa dha ni : ni dha pa ma ga ri sa*; but the series of this *mūrchanā* are recorded as follows:—

| | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|------------|-----|-----|-----|-----|-----|-----|-----|
| 1st series | sa | ri | ga | ma | pa | dha | ni |
| | 14 | 8 | 9 | 10 | 11 | 12 | 13 |
| 2nd series | ni | sa | ri | ga | ma | pa | dha |
| | 13 | 14 | 8 | 9 | 10 | 11 | 12 |
| 3rd series | dha | ni | sa | ri | ga | ma | pa |
| | 12 | 13 | 14 | 8 | 9 | 10 | 11 |
| 4th series | pa | dha | ni | sa | ri | ga | ma |
| | 11 | 12 | 13 | 14 | 8 | 9 | 10 |
| 5th series | ma | pa | dha | ni | sa | ri | ga |
| | 10 | 11 | 12 | 13 | 14 | 8 | 9 |
| 6th series | ga | ma | pa | dha | ni | sa | ri |
| | 9 | 10 | 11 | 12 | 13 | 14 | 8 |
| 7th series | ri | ga | ma | pa | dha | ni | sa |

(Chart 15, adopted from K.R. with modification)

this verse; they may be understood as subvarieties of the seven *mūrchanā-s*, called *krama-s* in the text. The word *krama* is used in the sense of series in this particular context.

These series of tonal order do not stand in the descending order and are therefore called *krama-s* or *mūrchanā-krama-s*—i.e., *mūrchanā*-series. Since each of the fiftysix *mūrchanā-s* has seven series, the total number of such sub-varieties comes to (56 × 7 = 392) three hundred and ninetytwo.

These *krama-s*, named as *mūrchanā*-series are considered to be *mūrchanā-s* only in so far as the notes in their ascending order are placed consecutively and exhibit some sort of order in their arrangement.

Mataṅga, following Bharata, classifies the seven-tonal *mūrchanā-s* in slightly a different way, viz. *pūrṇā* (complete), *śaḍavita* (hexatonic), *auḍvita* (pentatonic) and *sādharaṇī* (mixed), the first one of which incorporates all the seven notes, the second is composed of six notes, the third is formed with five notes only, while the fourth includes *kakali* or/and *antara* forms of *niṣāda* and *gandhāra*.

Bharata has defined *mūrchanā* as a group of seven notes placed in order, and he derives *mūrchanā-tāna-s* (also called only *tāna*) from them by the omission of one or two notes (cf. N. S., G. O. S. IV. 32-33, p. 25). Śarāṅgadeva too, basically follows this classification but technically he applies the term *tāna* to all those modifications of *mūrchanā-s* that are formed by the omission of one to six notes in the combinational and permutational note-series (*śuddha* and *kūṭātāna-s*).

(vii) मूर्च्छनानां देवताः

यक्षरक्षोनारदाब्जभवनागाश्विपाशिनः ॥२०॥

षड्जग्रामे मूर्च्छनानामेताः स्युर्देवताः क्रमात् ।

ब्रह्मेन्द्रवायुगन्धर्वसिद्धद्रुहिणभानवः ॥२१॥

स्युरिमा मध्यमग्राममूर्च्छनादेवताः क्रमात् ।

(vii) The presiding deities of the *mūrchanā-s* : 20c-22b

The presiding deities of the *mūrchanā-s* of the *śaḍja-grāma* respectively¹ are *yakṣa*², *rakṣa*³, Nārada⁴, Brahmā⁵,

1. That is, from the first *mūrchanā*-series to the seventh series.
2. *Yakṣa* is a class of demigods who are considered to be the guards of the treasures of Kubera, the god of wealth.
3. *Rakṣa* is the name given to evil spirits. 'K. R.' in his note on verse 20 considers *rakṣa-s* along with *yakṣa-s* to be semi-celestial beings. He does not elaborate on their function.
4. Nārada is a celestial figure, a sage elevated to be a divine roaming minstrel of the three worlds (i.e. the heaven being the abode of gods, the earth being the abode of mortals and the under world below the earth, being the abode of *nāga-s* or reptiles).
5. The creative aspect of the Hindu trinity.

nāga,⁶ *asvin*⁷ and *Varuṇa*⁸; and those of the *madhyama-grāma* respectively are *Brahmā*, *Indra*⁹, *Vāyu*¹⁰, *gandharva*,¹¹ *siddha*¹² *Śiva* and *sun*.¹³ (20c-22b)

(viii) नारदकथितानि मूर्च्छना-नामानि

तासामन्यानि नामानि नारदो मुनिरब्रवीत् ॥२२॥

मूर्च्छनोत्तरवर्णा ऽऽद्या षड्जग्रामे ऽभिरुद्गता ।

अश्वक्रान्ता च सौवीरी हृष्यका चोत्तरायता ॥२३॥

रजनीति समाख्याता ऋषीणां सप्त मूर्च्छनाः ।

आप्यायनी विश्वकृता चन्द्रा हेमा कपर्दिनी ॥२४॥

मैत्री चान्द्रमसी पित्र्या मध्यमे मूर्च्छना इमाः ।

नन्दा विशाला सुमुखी चित्रा चित्रवती सुखा ॥२५॥

आलापा चेति गान्धारग्रामे स्युः सप्त मूर्च्छनाः ।

ताश्च स्वर्गे प्रयोक्तव्या विशेषात्तेन नोदिताः ॥२६॥

(viii) Nārada's nomenclature for the *mūrccchanā-s* : 22c-26

The sage Nārada has given¹ another nomenclature for them² viz. the first in the *ṣaḍja-grāma* is *uttara-varṇā* and then³ *abhirudgatā*, *asvakraṅtā*, *sauvīrī*, *hṛṣyakā*, *uttarāyatā* and

Nārada is a celebrated authority of ancient India and this subject is dealt with in two works ascribed to him, viz. *Naradya-sikṣā* and *Saṅgīta-makaranda*. The nomenclature ascribed to Nārada in the text tallies more or less with the one given in *Naradya-sikṣā*, but is slightly different from that of *Saṅgīta-makaranda* (cf. N. Śikṣā 1.2.9-14)

6. *Nāga*, a class of beings inhabiting the world below the earth, who are likened to serpents.
7. *Asvins* are the twin brothers, the sons of the sun and the physicians of the gods.
8. A god of the vedic pantheon and puranic mythology.
9. The chief of the gods.
10. The god of wind.
11. Celestial chorister, a singer in general.
12. A class of demi-gods with supernatural powers, or a perfected human being.

1. Literally, it would be translated as 'said'.
2. 'Them' refers to the seven *mūrccchanā-s* of each of the *grāma-s*.
3. The sense of 'then' is implied in the context.

rajant; these are the seven *mūrccchanā-s* of the seers. In the *madhyama-grāma* the *mūrccchanā-s* are: *āpyāyanī*, *viśvakṛtā*, *candrā*, *hemā*, *kapardinī*, *maitrī* and *cāndramasī* belonging to the manes. *Nandā*, *viśalā*, *sumukhī*, *citrā*, *citravatī*, *sukhā* and *ālāpā* are the seven *mūrccchanā-s* of *gāndhāra-grāma*; but they have not been spoken of in detail as they are to be employed in heaven only. (22c-26)

and S. Mak. 1.2.10-15). However, it is notable that the name *uttara-varṇā* given to the very first *mūrccchanā* of the *ṣaḍja-grāma* is not found in both of them; and what is found in its place is *uttara-mandrā*. Besides, there are a few other minor variations. That shows that Śārṅgadeva probably had access to a different MS. of *Naradya-sikṣā*.

Another notable point is the distribution of the *mūrccchanā-s* of the three *grāma-s* among the gods, the seers (who are human beings) and the manes. This is in keeping with the Brahminical tradition of symbolic characterisation already spoken of. It may however be mentioned that, since the seven *mūrccchanā-s* of the *ṣaḍja-grāma* only are allocated to the seers (*ṛṣi-s*) these *mūrccchanā-s* only are considered to be of use in this world by the *Naradya-sikṣā* (cf. 1.2.13-14).

ग. तानाः

(i) शुद्धताननिर्माणविधिः, सङ्ख्या च

1. शुद्धतानलक्षणम्

तानाः स्युर्मूर्च्छनाः शुद्धाः षाडवोडुवितोक्ताः ।

C. The *tāna-s* : 27-90

(i) The formation and the number of the *śuddha-tāna-s* (specific combinational note-series) : 27-30

(1) The definition of the *śuddha-tāna* : (27ab)

The *śuddha*¹ (standard) *mūrccchanā-s*, by dropping one

Tāna, which has been rendered as 'note-series' is essentially a *mūrccchanā*. The word *tāna* is derived from the Sanskrit root *tan* to spread, to stretch, or to expand, enlarge, develop.

1. *Śuddha* literally means pure i. e., unmodified or natural. In this context, *śuddha* implies an ascending and descending series of seven standard notes placed in their regular order in the *ṣaḍja* or *madhyama grāma*; and that is why it has been rendered here as 'standard'.

or two notes become *śuddha-tāna-s*² (specific combinational note-series). (27ab)

The *mūrchanā-s* have been classified into four types (cf. verse 16 ante), viz. standard (*śuddha*, *kākalī*-inclusive, *antara*-inclusive and inclusive of both. Broadly speaking, these four types fall into two categories, viz. composed of standard notes only and composed of standard and modified notes. A *tāna* is formed by dropping one or two notes from any standard *mūrchanā*. Thus a *śuddha-tāna* is nothing but a standard *mūrchanā* deprived of one or two notes.

The word *śuddha* qualifies both the words *mūrchanā* and *tāna*. *Tāna-s* are also of two types *śuddha* and *kūṭa*, i. e. combinational and permutational. 'K' argues that if the word *śuddha* of the text is taken merely to qualify the word *tāna*, then *śuddha-tāna-s* would proceed from all the fiftysix *mūrchanā-s* already described, and in that case the number of hexatonic and pentatonic *tāna-s* would not tally with the text; while on the other hand, if it qualifies only '*mūrchanā*' then even *kūṭa* i. e. permutational *tāna-s* would also be possible from the standard *mūrchanā-s*, which is contrary to the fact. Thus it is that, *śuddha* (standard) *mūrchanā-s* when deprived of one or two notes become what is called the hexatonic and the pentatonic combinational note-series. Mataṅga, however, points out another difference between *mūrchanā* and *tāna*. He says: "*mūrchanā* proceeds in the ascending order, while *tāna* proceeds in the descending order only" So *tāna*, as differentiated by him, is restricted to the descending order of notes only.

2. *Tāna*, in the ancient terminology, is a series of five to six notes in a specific combinational order called *śuddha-tāna* (specific combinational note-series). Though *śuddha-tāna* is the full expression, when writing about it in its context, the word *śuddha*-is taken for granted and mere *tāna* is used instead. Accordingly, the expression specific combinational note-series is also sometimes replaced by the simple term note-series (in due context). But *tāna* as such has to be distinguished from *kūṭa-tāna* (permutational note-series) to be defined presently. However, in modern music *tāna*, as defined by Ravi Shankar, is a musical phrase sung on vowels, syllables or words drawn out or stretched by expressive passages. (cf. Glossary of technical words, My Music My Life).

2. षडवतानाः

षड्जगाः सप्त हीनाश्चेत्क्रमात्सरिपसप्तमः ॥२७॥

तदा ऽष्टाविंशतिस्ताना मध्यमे सरिगोज्झिताः ।

सप्त क्रमाद्यदा तानाः स्युस्तदा त्वेकविंशतिः ॥२८॥

एते चंकोनपञ्चाशदुभये षडवा मताः ।

(2) The hexatonic note-series : (27c-29b)

The seven (*mūrchanā-s*) of the *śaḍja-grāma*, by an individual omission of *sa*, *ri*, *pa* and *ni*¹ in their respective turn, make twenty-eight (note-series). Similarly, the seven (*mūrchanā-s*) of the *madhyama-grāma*, by the omission of *sa*, *ri* and *ga* in turn respectively form twentyone (note-series). Both of them put together, are considered to be forty-nine hexatonic note-series.² (27c-29b)

Though the combinational (*śuddha*) note-series (*tāna-s*) are derived from the standard (*śuddha*) *mūrchanā-s*, the latter is distinguished by the absence of modified notes, the former is distinguished not only by the absence of *kākalī* and *antara* notes, but also by the absence of any change in the regular arrangement of notes. If the note-series is set in the permutational form then it is called *kūṭa-tāna* i. e. permutational note-series. The note-series are formed by the omission of one or two notes. If one of the seven notes is omitted, what we get is a hexatonic note-series and if two out of the seven are omitted we get pentatonic note-series.

'K' raises the question that, "since *pañcama* determines the *grāma*, if it is omitted, how can it discharge this function?" He resolves the difficulty by pointing out that the *pañcama* can only be omitted in the *śaḍja-grāma*; therefore, even its omission is indicative of that particular *grāma*.

'S' explains at length how we get twentyeight note-series in the *śaḍja-grāma* and twentyone note-series in the *madhyama-grāma*. When the seven *mūrchanā-s* of the *śaḍja-grāma* are deprived of *śaḍja*, then we get seven hexatonic note-series, likewise when deprived of *ri*, *pa* and *ni* respectively, we get seven other such series in each case, making twenty-eight in all. Similarly, in the *madhyama-grāma* when the standard

1. *Saptama*—literally means the seventh (note) i. e. *ni*.
2. That is, '*śaḍava-tāna-s*'.

mūrchanā-s are deprived of *sa*, *ri* and *ga* respectively, they form into twentyone note-series. Taken together, we get forty-nine hexatonic note-series. That is how the standard *mūrchanā-s* being deprived of one or two notes become combinational note-series.

An illustration of the hexatonic note-series with the omission of *sa* in the *ṣaḍja-grāma*

| No. | Name of the <i>mūrchanā</i> | Form of the <i>mūrchanā</i> | | | | | | |
|-----|-----------------------------|-----------------------------|-----|-----|-----|-----|-----|-----|
| 1 | <i>Uttaramandrā</i> | x | ri | ga | ma | pa | dha | ni |
| 2 | <i>Rajantī</i> | ni | x | ri | ga | ma | pa | dha |
| 3 | <i>Uttarāyatā</i> | dha | ni | x | ri | ga | ma | pa |
| 4 | <i>Śuddhaṣaḍja</i> | pa | dha | ni | x | ri | ga | ma |
| 5 | <i>Matsarikṣṭa</i> | ma | pa | dha | ni | x | ri | ga |
| 6 | <i>Aśvakraṅta</i> | ga | ma | pa | dha | ni | x | ri |
| 7 | <i>Abhirudgatā</i> | ri | ga | ma | pa | dha | ni | x |

(Chart 16*)

Note :—x denotes omitted *sa*.

• Adopted from S. Raj. Vol. I, p. 132.

3. औडुवतानाः

सपाभ्यां द्विश्रुतिभ्यां च रिपाभ्यां सप्त वजिताः ॥२९॥

षड्जग्रामे पृथक्ताना एकविंशतिरोडुवाः ।

रिधाभ्यां द्विश्रुतिभ्यां च मध्यमग्रामगास्तु ते ॥३०॥

हीनाश्रतुदंशेव स्युः पञ्चत्रिंशत् ते युताः ।

(3) The pentatonic note-series : (29c-31b)

Besides, the seven (standard *mūrchanā-s*) of the *ṣaḍja-grāma* being deprived of *sa* and *pa*, *ga* and *ni*¹ and *ri* and *pa* respectively form twentyone pentatonic note-series; while those of the *madhyama-grāma* being short of *ri* and *dha* and *ga* and *ni*² respectively become fourteen (*tāna-s*): altogether, they make thirtyfive. (29c-31b)

Just as the standard *mūrchanā-s* by dropping one note become hexatonic note-series, by dropping two notes they become pentatonic note-series. In *ṣaḍja-grāma*, by the omission of *sa* and *pa* we get one set of seven pentatonic note-series, by the omission of *ga* and *ni*, another set of seven and by the omission of *ri* and *pa* the third set of seven, making twentyone in all. Similarly, in the *madhyama-grāma* by the omission of

1 & 2. *Dviśruti* of the text literally means a bi-śruti note; *ga* and *ni* are the two notes with two *śruti-s* each.

4. षाडबौडुवतान-मिलितसङ्ख्या

सर्वे चतुरशीतिः स्युर्मिलिताः षाडबौडुवाः ॥३१॥

(ii) कूटताननिर्माणं, तेषां सङ्ख्या च

1. कूटतानलक्षणम्

असम्पूर्णाश्च सम्पूर्णा व्युत्क्रमोच्चारितस्वराः ।

मूर्च्छनाः कूटतानाः स्युः,

(i) Total number of hexatonic and pentatonic combinational note series (*śuddha-tāna-s*) : (31cd)

However, the hexatonic and the pentatonic (specific combinational) note-series make eightyfour in all. (31cd)

(ii) The formation and the number of *kūṭa* (permutational) *tāna-s* (note-series) : 32-49

(1) The definition of *kūṭa-tāna* (permutational) note-series) : (32 abc)

The complete or incomplete *mūrchanā-s* with their notes produced in a permuted form become permutational note-series (*kūṭa-tāna-s*). (32a-32c)

ri and *dha* we get one set of seven pentatonic series, and by the omission of *ga* and *ni*, the second set, making fourteen in all. Thus the pentatonic note-series in both the *grāma-s* are counted as thirtyfive and the number of both the hexatonic and the pentatonic note-series in both the *grāma-s* is considered to be (49+35=84) eightyfour. An illustration of a pentatonic note-series is given as under. We know that *mūrchanā* is in the ascending as well as in the descending order of notes.

An illustration of the pentatonic note-series with the omission of *sa* and *pa* in the *ṣaḍja-grāma*

| No | Name of the <i>mūrchanā</i> | Form of the <i>mūrchanā</i> | | | | | | |
|----|-----------------------------|-----------------------------|-----|-----|-----|-----|-----|-----|
| 1 | <i>Uttaramandrā</i> | x | ri | ga | ma | • | dha | ni |
| 2 | <i>Rajantī</i> | ni | x | ri | ga | ma | • | dha |
| 3 | <i>Uttarāyatā</i> | dha | ni | x | ri | ga | ma | • |
| 4 | <i>Śuddha-ṣaḍja</i> | • | dha | ni | x | ri | ga | ma |
| 5 | <i>Matsarikṣṭ</i> | ma | • | dha | ni | x | ri | ga |
| 6 | <i>Aśvakraṅta</i> | ga | ma | • | dha | ni | x | ri |
| 7 | <i>Abhirudgatā</i> | ri | ga | ma | • | dha | ni | x |

(Chart 17*)

Note:—x denotes *sa* and • denotes *pa*.

• Adopted from S. Raj, Vol. I, p. 136.

A *mūrchanā* is said to be complete when it has seven notes, and it is considered incomplete when it has less than seven notes i.e. from six to one; although one note does not make a series, but that is theoretical. Actually, when one or more notes are omitted from a *mūrchanā*, it becomes a *tāna* (as already explained in the comments on 19-20b ante), a note-series. But, here, the author is talking in terms of incomplete *mūrchanā-s* (as well) giving rise to permutational note-series, because such note-series are derived from the *mūrchanā-series*, and not because on this account, they continue to be *mūrchanā-s*. It has already been said that Bharata has used the expression *mūrchanā-tāna* for hexatonic and pentatonic combinational note-series.

We have already come across the fourfold classification of *mūrchanā-s* and this is a twofold classification viz. complete and incomplete. Now, the purport of the text is that, a *mūrchanā*, whether complete or incomplete, becomes a permutational note-series if the normal order of its notes is disturbed, and in that case even a descending movement to a certain extent is no bar. It may be pointed out that ordinarily the notes of the *mūrchanā-series* (*krama-s*) from which the note-series are derived are in the ascending order.

2. पूर्णकूटानानां सङ्ख्या

तत्सङ्ख्यामभिदधमहे ॥३२॥

पूर्णाः पञ्च सहस्राणि चत्वारिंशद्युतानि तु ।

एकैकस्यां मूर्च्छनायां कूटानाः सह क्रमैः ॥३३॥

षट्पञ्चाशन्मूर्च्छनास्थाः पूर्णाः कूटास्तु योजिताः ।

लक्षद्वयं सहस्राणि द्व्यशीतिद्वे शते तथा ॥३४॥

चत्वारिंशच्च सङ्ख्याता

(2) The enumeration of the complete permutational note-series : (32d-35a)

We calculate their number as follows. Including the *mūrchanā-series* (*krama-s*) there are five thousand and forty (5040) complete permutational note-series in each of the

Mataṅga has spoken of five thousand thirtythree permutational note-series, and Śārṅgadeva has added the seven *mūrchanā-series* to this number, for each of the fiftysix *mūrchanā-s* does have seven series of its own. Dattila also does not include the seven *mūrchanā-series* (*krama-s*) in the total number of permutational note-series, but that

mūrchanā-s. Thus, the total number of the complete permutational note-series subsisting in the fiftysix *mūrchanā-s* comes to two lakh eightytwo thousand and two hundred forty (2,82,240). (32d-35a)

makes no difference in principle. The number 5040 is arrived at in the following manner :

| | | | |
|--------------|--|----------------------|-----------------------|
| With 1 note | the number of possible permutational series of | of the notes will be | $1 \times 1 = 1$ |
| With 2 notes | „ „ „ „ | „ „ | $1 \times 2 = 2$ |
| With 3 | „ „ „ „ | „ „ | $2 \times 3 = 6$ |
| With 4 | „ „ „ „ | „ „ | $6 \times 4 = 24$ |
| With 5 | „ „ „ „ | „ „ | $24 \times 5 = 120$ |
| With 6 | „ „ „ „ | „ „ | $120 \times 6 = 720$ |
| With 7 | „ „ „ „ | „ „ | $720 \times 7 = 5040$ |

To demonstrate let us take items with 2 and 3 notes to begin with :—

1. Two-note-series : sa ri, ri sa
2. Three-note-series : sa ri ga } group A with ga constant
ri sa ga }
sa ga ri } group B with ri constant
ga sa ri }
ri ga sa } group C with sa constant
ga ri sa }

Now, it will be observed that the two-note-series is a simple one and does not involve any complicated procedure in the working out of the different permutations as in the case of the three-note-series, and much more so in all the subsequent series. The permutations in the three-note-series are so arranged that an attempt is made as a rule to keep the last note of the series constant as long as possible. This is demonstrated in the four-note-series worked out hereunder.

| S. No. | Group A | Group B | Group C | Group D |
|--------|-------------|-------------|-------------|-------------|
| 1. | sa ri ga ma | sa ri ma ga | sa ga ma ri | ri ga ma sa |
| 2. | ri sa ga ma | ri sa ma ga | ga sa ma ri | ga ri ma sa |
| 3. | sa ga ri ma | sa ma ri ga | sa ma ga ri | ri ma ga sa |
| 4. | ga sa ri ma | ma sa ri ga | ma sa ga ri | ma ri ga sa |
| 5. | ri ga sa ma | ri ma sa ga | ga ma sa ri | ga ma ri sa |
| 6. | ga ri sa ma | ma ri sa ga | ma ga sa ri | ma ga ri sa |

It will be observed that on the basis of the above principle, the 24 permutations of the four-note series have been classified and arranged

in four groups in each of which the notes *ma*, *ga*, *ri* and *sa* respectively are constant, while the position of other notes keeps on changing. This gives us the clue to find out the number of possible permutations. Similarly the 120 permutations of the pentatonic series, 720 of the hexatonic series and 5040 of the complete series can be worked out easily. Another principle involved in these calculations is that the number of permutations of the preceding series denotes the number of times each note of the succeeding series can be kept constant. Thus, for example, the permutations of the two-note-series are 2, therefore in the three-note-series all the three notes can be kept constant twice, leading us to $(2 \times 3 = 6)$ six permutations in all. Likewise, in the four-note-series, each note can be kept constant for 6 times since the preceding three-note series has six permutations, leading us to $(4 \times 6 = 24)$ twenty-four permutations in all. That is how the pentatonics are $5 \times 24 = 120$, the hexatonics are $6 \times 120 = 720$, and the complete series are $7 \times 720 = 5040$.

3. अपूर्णकूटतान-निर्माणम्

,अथापूर्णान्प्रचक्ष्महे ।

एकैकान्त्यान्त्यविरहाद्भेदाः षट् षट्स्वरादयः ॥३५॥

एकस्वरो ऽत्र निर्भेदो ऽप्युक्तो नष्टादिसिद्धये ।

क्रमा अकूटतानत्वे ऽप्युक्तास्तेषूपयोगिनः ॥३६॥

(3) The formation of the incomplete permutational note-series : (35b-36)

Now, we are to describe the incomplete (permutational note-series). In each (of the *mūrchanā-s*) six varieties are formed, viz. hexatonic¹ etc. by successively dropping the last note step by step. Although the monotone has no sub-

The incomplete permutational note-series are formed by the simple device of dropping the last note from seventh to the second; thus, by dropping the seventh we get a hexatonic *tāna*, by dropping the sixth we get a pentatonic *tāna*, by dropping the fifth we get a tetratonic note-series, by dropping the fourth we get a tri-tone note-series, by dropping the third we get bi-tone series and by dropping the second we get the mono-tone: these are the six varieties.

1. Hexatonic, i. e., having six tones, the other varieties being pentatonic, tetra-tonic series, tritone-series, bitone-series and monotone-series.

varieties, it is also counted for the working of *naṣṭa*.² The original-series (*krama-s*³) which are unrelated to the permutational note-series have also been included as they will be useful with regard to them. (35b-36)

The number of note-series in each of them will now be described. The terms *naṣṭa* and *uddiṣṭa* will shortly be explained in their proper context, but for the time being the author has pointed out the reason for enumerating the mono-tone as a note-series even though it can have obviously, no varieties. Similarly, the *krama-s* or the *mūrchanā*-series (precisely called here as, the original-series) too have been enumerated for technical reasons which will soon be clear.

4. अपूर्णकूटतानानां सङ्ख्या

स्युः षड्वानां विशत्या सह सप्त शतानि तु ।

औड्वानां तु विशत्या सहितं शतमिष्यते ॥३७॥

चतुःस्वराणां कूटानां चतुर्विंशतिरोरिताः ।

त्रिस्वराः षड् द्विस्वरी द्वावेकस्त्वेकस्वरो मतः ॥३८॥

(4) The enumeration of the different permutational note-series : 37-38

The hexatonic series formed are seven hundred and twenty¹, and the pentatonic series are one hundred and

Ārcika literally means relating to the *R̥gveda* (*R̥c+veda*). *R̥c* is a hymn, and the hymns employed in the performance of sacrifices, it seems, were sung in the monotone, though the accent system was also there with its three accents viz., *udatta* (raised), *anudatta* (unraised) and *svarita* (intermediate note). 'K' also says, "*Tajñāprayogeṣu r̥cāmekasvārā-brayatoāt, tatsambandhādārcikalī*" i. e., hymns while they are employed in

(2. *Naṣṭa* will be explained later.)

3. *Krama* in this context refers to the original (*mūla*) form of the *mūrchanā-s* in their ascent i. e., '*sa ri ga ma pa dha ni*' for *uttamandrā*. However, the term *mūrchanā*-series applied to the 392 series spoken of vide 19-20 ab ante is not precisely applicable in the context of the calculation of permutational note-series, the *krama-s* for which may consist of six to one notes each in the original order of the *mūrchanā*-series concerned. Thus, the *krama-s* in this context have been rendered as the original series, as the author himself names them as *mūla-krama-s* somewhere else (verse 40 of this section).

1. This includes the original series (*krama-s*) as well.

5. एकस्वरादि-कूटतानचतुष्टयस्य नामानि

आचिको गार्धिकश्चाथ सामिको ऽथ स्वरान्तरः ।

एकस्वरादितानानां चतुर्णामभिधा इमाः ॥३९॥

twenty, the tetratonic permutational note-series are known to be twentyfour, the tritone series are six, the bitone series are two and the monotone is one, of course. (37-38)

(5) The names of the first four permutational note-series : 39

The names for the first four note-series such as monotone etc. respectively are *ārcika*, *gāthika*, *sāmika* and *svārāntara*. (39)

the sacrifices take resort to the monotone, and so being related to them, the monotone is called *ārcika*.

Similarly *gāthika*, is the one that is related to *gāthā*, i. e. nonvedic religious verse. Likewise the tritone is associated with the *Sāmaveda*: the hymns of this particular veda were sung in three tones when employed for sacrificial purposes. However, the *Sāmaveda* otherwise bears ample evidence that its music was based on seven notes, though we need not go into this subject in this context. But it is worthwhile to quote Swami Prajñānānanda who writes, "The *sāmagāna* was of various types with different numbers of tone in different vedic recensions (*śakha*-s), and they had different methods of rendering. Usually three, four or five notes were used in the *sāmagāna*-s, but in the *kauthuma* recension (*śakha*) the *sāmagāna* was presented with seven vedic notes. The vedic notes were in the downward movement (*avarohaṇa-krameṇa*), whereas the modern classical notes are used in the upward movement (*arohaṇa-krameṇa*)", (cf. Historical Development of Indian Music, pp. 46, 47). It may also be observed that the bulk of the hymns of the *Sāmaveda* are taken verbatim from the *Rigveda* with a view to their application in the context of certain sacrifices. It is interesting to refer to the *Nāradya-śikṣā* in this context which also gives the four names exactly as in the text : "*Ārcikam gāthikam caiva sāmikam ca svarāntaram*" (1.1.2), and then it goes on to explain as under :

"*Ēkāntaraḥ svāro hyrkṣu gāthāsu dnyāntaraḥ svāraḥ : Sāmasu tryāntaram vidyādetavat svāro-antaram*" (1.1.3) i. e., "The hymns of the *Rigveda* are to be sung with a single-space tone, those of the *gāthā* with the double-space-tone, while those of the *Sāmaveda* with the triple-space tone; such is the scheme of tonal spacing."

Although later in the classical period *gāthā* represents non-vedic religious verse, from the above context and also from the following verse it seems, here it refers to the *Tajur-veda*. The fact that this tonal distribution is related only to those hymns that are meant to be employed in the sacrificial acts is also evidenced by the following verse of this work:

"*Rk sāmoyajurāṅgāni ye yajñeṣu prayujate, aijñānaddhi śāstrāṅgam teṣāṃ bhavati visvārah.*" (1.1.4), i. e., 'Those parts of the *Rg. Tajur* and the *Sāma-veda*-s that are applied in sacrificial acts, due to the lack of scientific understanding, are recited in the wrong tone (i. e. in an improper and unprecise way)' Here, the word *Tajur* seems to have been used for *gāthā*. However, in the Vedic literature the word *gāthā* is also used in the sense of *gāna* i. e., song Swami Prajñānānanda, after giving the illustrations of its use in the *Rigveda*, concludes that "*gāthā* is, *gāyate-iti gāthā* i. e., that which is sung, or is suitable for singing is *gāthā*". (cf. Historical Development of Indian Music, pp. 46, 47).

6. षड्वकूटतान-सङ्ख्या

उक्ताः शुद्धादिभेदेन निगयुक्ताश्चतुर्विधाः ।

तयोरेकं कहीनास्तु द्वेधा मूलक्रमा मताः ॥४०॥

षड्जाद्यौ मध्यमाद्यौ च चत्वारः स्युर्द्विधा द्विधा ।

चतुर्धा ऽन्ये दशेत्यष्टाचत्वारिंशदमी क्रमाः ॥४१॥

सविंशतिः सप्तशतो प्रागुक्ता गुणिता क्रमैः ।

चतुस्त्रिंशत्सहस्राणि षष्ट्या पञ्च शतानि च ॥४२॥

इति षड्वकूटतान-सङ्ख्या स्यात्,

(6) The enumeration of the hexatonics :40-43a

The original series, inclusive of *ga* and *ni* have been mentioned¹ to be fourfold viz. *śuddhā* (standard) etc., but if deprived of either² of them, they are considered to be two-

The *mūrchanā*-s such as '*sa ri ga ma pa dha ni : ni dha pa ma ga ri sa*' etc. have been explained as fourfold vide verse 16 ante. The four types enumerated are the standard, the *kākalī*-inclusive, the *antara*-inclusive and the twin-inclusive (i. e. inclusive of both *kākalī* and *antara*). Corresponding *mūrchanā*-series are derived from out of these, taking the seven notes in their ascending order. However, as already explained

1. The fortysix *mūrchanā*-series mentioned vide 16-17 ante.

2. That is, if either *ni* or *ga* is dropped.

fold³. The four⁴ beginning with *ṣaḍja*⁵ and *madhyama*⁶ are twofold each, and the other ten are fourfold; thus, these original series are forty-eight⁷ in all. (40-41)

The seven hundred and twenty⁸, already enumerated, when multiplied by the original series make thirty-four thousand five hundred and sixty, which forms the total number of hexatonics⁹. (42-43a)

(cf. note 3 on 35b-36d), when one or more notes are dropped out of these series in their original order for making permutational note-series, these *mūrccchanā*-series in that modified form are called *krama*-s or original series. The author, now onwards, is taking into account the number of these original series in the hexatonic to monotonic series.

Now, if hexatonic note-series are to be formed out of the *mūrccchanā*-series, the last note may be dropped in the process, in each case. Thus we shall, in effect, have two types of note-series viz. inclusive of either *kākālī* or *antara* or exclusive of either of them.

Fourteen *mūrccchanā*-s have been spoken of (vide verse 15 ante) in both of the *grāma*-s. Out of these fourteen, two in each of the *grāma*-s (i.e. four) begin with *sa* and *ma* and end in *ni* and *ga* respectively. In their case only two alternate types are possible viz., *śuddhā* (standard) and *antara*-inclusive, and *śuddhā* (standard) and *kākālī*-inclusive. The rest of the ten *mūrccchanā*-s will have the usual four varieties. Thus we have four hexatonic note-series, which are two-fold, making eight varieties in all, and ten hexatonic note-series that are four-fold making forty varieties in all. The total number of the original series, in this way, comes to forty-eight. (40-41)

Seven hundred twenty permutational hexatonic note-series have been enumerated (cf. verse 37 ante) for each *mūrccchanā*. In all forty-eight *mūrccchanā*-series have been counted. Thus the total number of the permutational hexatonic note-series is worked out (720 × 48 = 34560) to be thirty-four thousand five hundred and sixty.

3. Viz in case *ni* is dropped, standard and *antara*-inclusive; and in case *ga* is dropped, standard and *kākālī*-inclusive.
4. The four *mūrccchanā*-series.
5. The first *mūrccchanā* (*uttaramandrā*) of the *ṣaḍja-grāma* and the fourth *mūrccchanā* (*śuddhamadhvā*) of the *madhyama-grāma*.
6. The fifth *mūrccchanā* (*natsarīkṣīta*) of the *ṣaḍja-grāma* and the first (*śauvri*) of the *madhyama-grāma*.
7. $(4 \times 2 = 8) + (10 \times 4 = 40) = 8 + 40 = 48$.
8. 720 permutational hexatonic note-series, formed out of a given combination.
9. That is, permutational hexatonic note-series, formed out of 48 hexatonic combinations or original series. This number also includes the original-series (*mūlakrama*-s).

7. औडुवकूटतान-सङ्ख्या

,अथ पञ्चस्वरान्बुवे ।

गाद्यौ धाद्यौ निषादाद्यौ चतुर्भेदाः षडौडुवाः ॥४३॥

अष्टावन्ये द्विधेत्येवं चत्वारिंशदिभे क्रमाः ।

सर्विशतौ शते तेश्च गुणिते षष्टौ शतानि तु ॥४४॥

चत्वारि च सहस्राणि सङ्ख्या पञ्चस्वरेष्विति ।

(7) The enumeration of the pentatonics : 43b-45b

Now, I am to describe the pentatonics.¹ The six pentatonics² commencing with *ga dha* and *ni* are fourfold, and the eight others are twofold; thus, these (original) series are forty in all, which when multiplied by one hundred and twenty³ bring the total number of the pentatonics⁴ to four thousand and eight hundred. (43b-45b)

The pentatonic permutational note-series are formed by dropping the last two notes of the *mūrccchanā*-series. In the two *grāma*-s we have six series i. e., three in each beginning with *ga*, *dha* and *ni* in which naturally neither *ga* nor *ni* is dropped. So these six series are fourfold; but in the case of remaining eight series either *ga* or *ni* is dropped, and so we can have only two types. That is how the total number of pentatonic series is found to be forty, i. e. $(6 \times 4 = 24) + (8 \times 2 = 16) = 24 + 16 = 40$.

1. The pentatonic permutational note-series.
2. These six are identified to be from the *mūrccchanā*-s of the two *grāma*-s as under.

| Commencing with the note | The <i>mūrccchanā</i> -s in the <i>grāma</i> s | | | |
|--------------------------|--|----------------------------|-----|-------------------------------|
| | No. | <i>Ṣaḍja-grāma</i> Name | No. | <i>Madhyama-grāma</i> Name |
| ga | 6th | <i>Aśukrāntā</i> | 2nd | <i>Hariṇāśvā</i> |
| dha | 3rd | <i>Uttarayātā</i> | 6th | <i>Pauravī</i> |
| ni | 2nd | <i>Rajantī</i> | 5th | <i>Mārgī</i> |

(Chart 18)

(Showing pentatonic series inclusive of *ga* and *ni*)

3. 120 is the number of permutational pentatonic note-series (*kūṭa-tāna*-s) formed out of a given combination or original-series.
4. That is permutational pentatonic note-series formed out of 40 pentatonic combinations or original series. The number also includes the original series (*mūlakrama*-s).

Again each of the *mūrchanā*-series has been spoken of as having one hundred and twenty permutational pentatonic note-series. We have forty *mūrchanā*-series for pentatonics, and multiplied by one hundred and twenty, the total number of the permutational pentatonic note-series comes to four thousand eight hundred including the original *mūrchanā*-series.

8. चतुःस्वरकूटतान-सङ्ख्या

चतुःस्वरेषु न्याद्यौ द्वौ चतुर्धा द्वादशापरे ॥४५॥

क्रमा द्विधेति द्वात्रिंशच्चतुर्विंशतिताडिता ।

शतानि सप्ताष्टषष्ट्या स्याच्चतुःस्वरसंमितिः ॥४६॥

(8) The enumeration of the tetratonics : 45c-46

Among the tetratonics¹, the two commencing with *ni* are fourfold, while the other twelve (original) series are twofold; these thirtytwo² when multiplied by twentyfour³ make a sum-total of seven hundred and sixty-eight.⁴ (45c-46)

Of the fourteen *mūrchanā*-s of the two *grāma*-s when the tetratonics or the series of four notes are derived, two of them that begin with *ni* (i. e. from the second of the *śalja-grāma*, *rajanī*) and the fifth of the *madhyama-grāma mārṅī*), include *ga* as well, and therefore have four varieties. The other twelve drop either *ni* or *ga* and hence have only two types. So among the tetratonics we have $(2 \times 4 = 8) + (12 \times 2 = 24) = 8 + 24 = 32$ (thirty-two) original series.

Twenty-four permutational note-series of the tetratonics have been enumerated for each of the original series (vide verse 38 ante). So, thirty-two multiplied by twenty-four yields seven hundred and sixty-eight tetratonic series.

1. 'Tetratonic' is an abbreviated expression for the permutational note-series of four notes.
2. That is, eight obtained from the two *mūrchanā*-s beginning with *ni* and twentyfour from the remaining twelve *mūrchanā*s, having two varieties each.
3. The number of permutational note-series of four tones in each combination or original series.
4. That is, permutational tetratonic note-series, formed out of 32 tetratonic combinations or original series. This number also includes the original series (*mūla-krama*-s).

9. त्रिस्वरकूटतान-सङ्ख्या

त्रिस्वरेषु तु माद्यौ द्वावभेदौ द्वादशापरे ।

द्विधा षड्विंशतिरिति क्रमास्ते षडभिराहताः ॥४७॥

षट्पञ्चाशच्छतं च स्युः,

(9) The enumeration of the tritones : 47-48a

But among the tritones¹, the two commencing with *ma* have no variations, while the remaining twelve are twofold : thus, these twenty-six (original) series when multiplied by six make one hundred and fifty-six² in all. (47-48a)

When the tritone permutational note-series are formed from the fourteen *mūrchanā*-s, the last four notes are dropped in each case. In this process the two *mūrchanā*-s of the two *grāma*-s beginning with *ma*, i. e., the fifth (*maśarīkṛtā*) of the *śalja-grāma* and the first (*sauvṛtī*) of the *madhyama-grāma*, when deprived of their last four notes, drop out both *ni* and *ga*, and thus can have no varieties. The other twelve series have two varieties each, for they would retain either *ni* or *ga*. That is how the original series for three tones are counted as twentysix : $2 + (12 \times 2 = 24) = 26$.

Again, each of the original series has six tritone permutational note-series (cf. verse 38 ante). Thus, the total number of the tritone permutational note-series comes to one hundred and fiftysix (i. e. $26 \times 6 = 156$).

10. द्विस्वरैकस्वर-कूटतान-सङ्ख्या

, द्विस्वरेषु पुनर्द्विधा ।

रिगधन्याद्यो ऽष्टौ स्युः शुद्धास्तदितरे क्रमाः ॥४८॥

(10) The enumeration of the bitones and the monotonics : 48b-49

Again among the bitones¹, the (original) series commencing with *ri*, *ga*, *dha* and *ni* being twofold are eight, while

1. That is, the permutational note-series of three notes.
2. That is, permutational tritonic note-series, formed out of 26 tritonic combinations or original series. This number also includes the original series (*mūla-krama*-s).

1. 'Bi-tone' represents the permutational note-series of two notes.

द्वाविंशतिस्ते तु चतुश्चत्वारिंशद् द्विताडिताः ।
एकस्वरास्त्वभेदत्वान्मौला एव चतुर्दश ॥४९॥

the others² are *suddha* (standard). These twenty-two multiplied by two become forty-four³ while the monotones⁴ having no variations are fourteen⁵ *krama-s* in identity with the original-series. (48b-49)

The bitone permutational note-series are formed by dropping the last five notes from the *mūrchanā*-series. In this process the bitone series beginning with *ri*, *ga*, *dha* and *ni* include either *ga* or *ni* and are therefore twofold, yielding sixteen varieties in the two *grāma-s*. The remaining six series, being devoid of both *ga* and *ni*, have no variations. Thus the bitones are twenty-two series. But each *mūrchanā*-series has two bitones; so the total number of bitone permutational note-series is forty-four (i. e. $16 + 6 = 22 \times 2 = 44$).

With the so-called monotone series, there is obviously no question of variation, so in identity with the fourteen *mūrchanā-s* from which they are derived, they are fourteen in all.

To recapitulate, the total number of the permutational note-series enumerated hitherto is computed as under :—

| | | | |
|--|----------|------|-------------------|
| (i) The complete series of seven tones each | 2,82,240 | vide | |
| | | | verse No. 34 ante |
| (ii) The hexatonic series of six tones each | 34,560 | „ „ | 42 „ |
| (iii) The pentatonic series of five tones each | 4,800 | „ „ | 45 „ |
| (iv) The tetratonic series | 768 | „ „ | 46 „ |
| (v) The tritonic series | 156 | „ „ | 48 „ |
| (vi) The bitonic series | 44 | „ „ | 49 „ |
| (vii) The monotones | 14 | „ „ | 49 „ |

Total number including original series 3,22,582

2. The remaining six original series i. e., *krama-s*.
3. This number includes the original series as well.
4. Permutational note series of one note each.
5. That is because the series of *mūrchanā-s* are fourteen.

(iii) पुनरुक्ताः कूटतानाः, तेषामपनये कूटतान-सङ्ख्या
षड्जादेः शुद्धमध्याया भेदकं पञ्चमं विना ।
चतुःस्वरे क्रमद्वन्द्वे षष्ठाचत्वारिंशदीरिताः ॥५०॥
तानास्त्रिस्वरयोस्त्वेते द्वादश द्विस्वरे द्वयम् ।
एक एकस्वरस्ते त्रिषष्टिरौत्तरमन्द्रकं ॥५१॥
पुनरुक्ता मतास्तानैर्न्यादिमार्गीक्रमाः पुनः ।
पञ्चस्वरा ये चत्वारस्तत्तानानां चतुःशती ॥५२॥
अशीत्यभ्यधिका चातुःस्वरी षण्णवतिर्भवेत् ।
द्वादश त्रिस्वरद्वन्द्वे चत्वारो द्विस्वरद्वये ॥५३॥
एक एकस्वरस्तानस्तेषां पञ्चशती त्वियम् ।
त्रिनवत्या युता तानंरभिन्ना रजनीगतैः ॥५४॥
धंवतादेस्तु पौरव्याश्रित्वारः षट्स्वराः क्रमात् ।
तत्तानानां तु साशीतिः शताष्टाविंशतिर्मता ॥५५॥
औडुवानां चतुर्णां प्रागुक्ता सङ्ख्या चतुःस्वरी ।
त्रिस्वरौ द्विस्वरावेकस्वरः प्रागुक्तसङ्ख्याकाः ॥५६॥
पञ्चविंशतिसंयुक्ता चतुस्त्रिंशच्छती त्वियम् ।
तानानां सदृशाकारा स्यात्तानंरौत्तरायतैः ॥५७॥
इत्येकाशीतिसंयुक्तं सहस्राणां चतुष्टयम् ।
तानानां पुनरुक्तानां पूर्णापूर्णाः सह क्रमः ॥५८॥
अपनीयेत चेदेषा कूटतानमितिर्भवेत् ।
लक्षत्रयं सप्तदश सहस्राणि शतानि च ॥५९॥
नवत्रिंशद्युतानीति,

(iii) The repetitions and the total number of permutational note-series : 50-60

In the absence of the *grāma*-indicative¹ *pañcama* of the *śuddha-madhyā*² commencing with *śaḍja*, forty-eight note-series of tetratones, twelve of tritones, two of bitones and one of the monotone in the two original series,³ making sixty-three in all are considered to be the repetitions of those pertaining to *uttaramandrā*⁴. (50-52a)

In *mārgī*⁵, which commences with *niṣāda*, the four⁶ (original-series) provide four hundred and eighty pentatonic

The 3,22,582 permutational series of notes just enumerated not only include the number of original-series (*krama*-s) but also many repetitions in-between the note-series of the two *grāma*-s. 'K' very ably introduces this matter as under:

"Even though *ni* and *ga* in their *kākalī* and *antara* forms determine and bring about the *mūrchanā*-variation, yet while this difference in relation to other notes is quite notable, it is hardly perceptible within these notes i. e., with reference to *niṣāda* and *gāndhāra*; and that is why these two (i. e. *kākalī* and *antara*) are not considered to be as good as the standard notes. Again, if as a rule, the different *mūrchanā*-s such as *rajantī* etc. commencing with *ni* etc. in the *śaḍja-grāma* come into being by occupying the position of middle *śaḍja* and those in the *madhyama-grāma* such as *hāriṣāṭvā* etc., commencing with *ga* etc., occur by occupying the middle *madhyama* of the *madhyama-grāma*, then even where the *grāma*-indicator viz. the *pañcama* is omitted, because of the difference in the

1. *Pañcama* is considered to be indicative of the *grāma* in the sense that if it is a four-*śruti* *pañcama* it indicates the *śaḍja-grāma* and if it is a three-*śruti* *pañcama* it indicates the *madhyama-grāma*. Literally, the '*bhedaka*' of the text means 'discriminator' implying that it functions to distinguish between the two *grāma*-s.

2. *Śuddhamadhyā* is the fourth *mūrchanā* of the *madhyama-grāma* and runs as '*sa ri ga ma pa dha ni*'.

3. The series pertaining respectively to the two types standard and *antara*-inclusive.

4. The first *mūrchanā* of the *śaḍja-grāma* which runs as : *sa ri ga ma pa dha ni*.

5. The fifth *mūrchanā* of the *madhyama-grāma* commencing with *ni* and ending with *dha*.

6. These are—standard, *kākalī*-inclusive, *antara*-inclusive and inclusive of *kākalī-antara*.

note-series and ninety-six tetratonic series; the two⁷ (original series) produce twelve tritone and four bitone note-series, which along with the one monotone altogether make five hundred and ninety-three note-series that are identical with those of *rajantī*.⁸ (52-54)

*Pauravī*⁹, commencing with *dhaivata*, with its four¹⁰ (original series) is found to have two thousand eight hundred gramic position of the commencing note of the *mūrchanā*, there is no question of any repetition being made in the permutational note-series proceeding from them, since their parent *grāma* can easily be traced. But however, if as a rule, in the two *grāma*-s the different *mūrchanā*-s are formed by placing the commencing notes one below the other then the note-series of the *śuddha-madhyā*, *mārgī* and *pauravī mūrchanā*-s of the *madhyama-grāma* have a necessary correspondence with the note-series such as hexatonics etc of the *uttaramandrā*, *rajantī*, *uttarāyātā* etc., the *mūrchanā*-s of the *śaḍja-grāma*; and thus, due to the lack of difference in the gramic position of the commencing notes and also because of the omission of *pañcama* there is a definite possibility of their having been repeated. Therefore, the author is now to point out such repetitions in the note-series of the *madhyama-grāma*, in order to exclude them from the total number."

Now, this introduction to the topic of repetitions, significant as it is, obviously requires some elucidation. Two ways of forming the *mūrchanā*-s have been mentioned (verse 12-15 ante) viz. (i) by commencing the succeeding *mūrchanā*-s with their opening notes placed in the position of *śaḍja* in the *śaḍja-grāma* and *madhyama* in the *madhyama-grāma* and (ii) by placing their commencing notes one below the other. The commentator points out that in the first case there is no possibility of repetitions, for then the *grāma*-distinction is preserved, but in the second case the possibility does exist. After all, the only markable difference between the two *grāma*-s is the number of *śruti*-s of *pañcama*, the other differences being consequent upon it. The process of forming note-series is such that successively the last notes are dropped. In this process *pa*, which is indicative of the *grāma*, is invariably retained in the

7. These are—standard and *kākalī*-inclusive.

8. The second *mūrchanā* of the *śaḍja-grāma* corresponding to the *mārgī* of the *madhyama-grāma*.

9. *Pauravī* is constituted as : *dha ni sa ri ga ma pa*.

10. The four original series are of the four types, viz. standard, *kākalī*-inclusive, *antara*-inclusive and inclusive of both *kākalī* and *antara*.

The number of repetitions

| Sl. No. | Description of series | No. of repetitions | Break up if any | Remarks |
|---|----------------------------|--------------------|---------------------------|--|
| 1. | •Complete original series | 392 | 56 × 7 = 392 | •i. e. <i>mūlakramas</i> or <i>krama-s</i> |
| 2. | Incomplete original series | 179 | 48+40+32+26 +22+11=179 | Hexatonic, pentatonic, tetratonic, tritonic, bitonic and monotone series respectively. |
| 3. | Repeated note-series | 4081 | 63+593+3425 =4081 | <i>Suddhamadhya</i> , <i>mārgī pauravī</i> respectively |
| Total number of repetitions : 392+179+4081 = 4652 | | | | |

(Chart 19b)

The correct number of permutational note-series

| | | | |
|-------------------------------|-----|-----|-----------|
| Total number of note-series | ... | .. | 3,22,582 |
| Total number of repetitions | | | (-) 4,652 |
| Correct number of note-series | ... | ... | 3,17,930 |

(Chart 19c)

(iv) प्रतिमूर्च्छनं कूटतान-सङ्ख्याज्ञानोपायः

, ज्ञानोपायो ऽत्र कथ्यते ।

अङ्कानेकादिसप्तान्तानूर्ध्वमूर्ध्वं लिखेत्क्रमात् ॥६०॥

हते पूर्वेण पूर्वेण तेषु चाङ्के परे परे ।

एकस्वरादिसङ्ख्या स्यात्क्रमेण प्रतिमूर्च्छनम् ॥६१॥

(iv) Determining the number of permutational forms in the note-series of each *mūrcchanā* : 60b-61Now, the method of determining them¹ is herewith described : Let the numbers one to seven be written (verti-

Since the number of permutations making for the note-series enumerated above is enormous, a mathematical device has been devised to determine the number of a particular permutation of a given form

1. This refers to the permutational note-series i. e., the *kaṭa-*cally) one over² another in consecutive order. Every succeeding³ number multiplied by the preceding⁴ one respectively points out the number of note-series such as monotone etc., in each *mūrcchanā*. (60b-61)in a particular series and also the particular form of a certain permutation in a particular series, given its proper number. This device is called *khaṇḍa-meru*, which will be explained subsequently.Presently the author is trying to explain the method of working out the precise number of the note series or the permutational form of a particular series of notes such as monotone, bitone, tritone series and so on in each *mūrcchanā*.

The text directs us to write numbers commencing from one upto seven, one over the other i. e., vertically. These numbers incidentally would represent the particular note-series such as monotone, bitone, etc. Keeping in view the directions of the text the numbers would be written from the bottom to the top. 'S' too interprets the text as such.

Number of permutational forms in different note-series in each *mūrcchanā*

| Sl. No. | Note-series | Suggested multiplication | Number of the permutational form |
|---------|-------------|--------------------------|----------------------------------|
| 7 | Heptatonic | 7 × 720 | = 5040 |
| 6 | Hexatonic | 6 × 120 | = 720 |
| 5 | Pentatonic | 5 × 24 | = 120 |
| 4 | Tetratonic | 4 × 6 | = 24 |
| 3 | Tritonic | 3 × 2 | = 6 |
| 2 | Bitonic | 2 × 1 | = 2 |
| 1 | Monotone | 1 × 1 | = 1 |

(Chart 20a)

However, for the sake of convenience an inverted graph is presented below commencing with the monotone from the top. To apply the text, the figures in the first vertical row in column 3 be taken as the succeeding numbers and the figures of the respective previous series in column 4 may be taken as the preceding numbers.

- This expression does not suggest that the numbers are not to be written serially, for that direction has explicitly been given immediately in the text, it only implies that they are not to be written horizontally as usual.
- The successive note.
- The preceding resultant i. e., the number of the permutations of the previous series,

Number of permutational forms in different
note-series in each *mūrchanā*

| Sl. No. | Note-series | Suggested multipli- cation | Number of the permuta- tional form |
|---------|---------------------------|-------------------------------|---------------------------------------|
| 1 | Monotone | 1 × 1 = | 1 |
| 2 | Bitonic | 2 × 1 = | 2 |
| 3 | Tritonic | 3 × 2 = | 6 |
| 4 | Tetratonic | 4 × 6 = | 24 |
| 5 | Pentatonic | 5 × 24 = | 120 |
| 6 | Hexatonic | 6 × 120 = | 720 |
| 7 | Heptatonic or complete | 7 × 720 = | 5040 |

(Chart 20b)

In other words, every successive note in a given series has as many possibilities of permutation as those of all the notes of the preceding series put together. That is how the number of the permutations of the preceding series, when multiplied by the number of notes in the successive series results in the total number of the permutations of the succeeding series.

(v) कूटतान-प्रस्तारः

क्रमं न्यस्य स्वरः स्थाप्यः पूर्वः पूर्वः पराद्धः ।

स • चेदुपरि तत्पूर्वः पुरस्तूपरिवर्तितः ॥६२॥

मूलक्रमक्रमात्पृष्ठे शेषाः प्रस्तार ईदृशः ।

(v) The formation of the permutational calculus (*prastāra*) :
62-63b

Having established the original order¹, every² preceding note has to be placed below the succeeding one. If

Now, the author is explaining the procedure for forming, what may be called the 'permutational calculus' (*prastāra*), that is, he is

1. '*sa ri ga ma pa dha ni*' is the original order of the seven notes. The word *krama* which has been rendered as 'the *mūrchanā* series' or sometimes as the original series has a different shade of meaning here, though essentially the connotation of the word remains the same. If it is a tetratonic series the order would be '*sa ri ga ma*' for it, and so on. Thus, in this context, *krama* implies the original combinational order of notes of a given note-series. But for the sake of convenience we are to use the expression "original order" corresponding to the Skt. *mūlakrama*.
2. The repetition of the term '*pūrva*' in the text has been effected through this expression, since that is the import of the text.

that³ becomes the succeeding note, the preceding one may be advanced keeping the subsequent⁴ notes afterwards; and

describing the method of placing the notes of various types of note-series such as complete, hexatonic etc., in a particular and progressive sequence of notes, giving all the possible permutations of the series. The essential formula consists in the rule that, while forming the 'permutational calculus' (*prastāra*) the notes of the series may, in the first instance, be placed in their original order, which may be considered to be the first note-series. In order, further to derive the other possible permutations the preceding note in each of the series has been placed below the succeeding note.

The question is, 'what to do about the remaining notes'?, and the author himself explains that the notes following the succeeding note will have to be placed after the note transposed, and the notes preceding it will be placed before it in their original order. This much is the action that is to be taken.

The next series, and all the other possible series will be formed by applying the above rule to their preceding series. The application of the rule is demonstrated by the commentators as under with respect to the permutational calculus of the tetratonic series.

(i) The first series is of the original order viz. *sa ri ga ma*.

(ii) To form the series the preceding note viz. *sa* is to be written below the succeeding note, viz. *ri*. The subsequent notes *ga* and *ma* will be written after (or in front of) *ri* as in the overhead line (i. e., the preceding series), and *ri* will naturally be placed before i. e., behind it; thus what we get is *ri sa ga ma*.

(iii) To form the third series, the second series may be taken as the top. Now as per the rule, *ri* may be placed below *sa* which will result in the series *sa ri ga ma*, a repetition of the original order. The purpose of the permutational calculus being the forming of different

The implication derived by 'K' is that this action can be taken only once in each of the note-series of a particular sequential order.

3. The pronoun 'that', according to 'S', refers to the preceding note i. e., in the first step. This is the second step being explained and accordingly the preceding note of the first step becomes the succeeding note of the second step.
4. The subsequent notes are the ones that follow the action taking place among the preceding notes with reference to the previous note-series.

the rest (of the notes in the series) be left behind⁵ according to the original order; such is the 'permutational calculus'⁶ (*prastāra*). (62-63b)

permutation-series, no relationship is to be repeated. Moreover, the author has ordained that the two notes can be interposed only once in a series. Thus, *ri* cannot be placed below *sa* as that relationship is already available on the top; therefore, *ri* will now be related to *ga*, and *ga* will be placed before *ri*; *ma* will follow *ri* in accordance with the series overhead and *sa* will be in its own position as per the original order. Thus we shall get *sa ga ri ma*

(iv) To form the fourth series *sa* will be placed below *ga*, *ri* and *ma* will follow it as per the overhead series (i. e. the third series) and *ga* will be placed behind *sa*. Thus we get *ga sa ri ma*.

(v) To form the fifth series, as per the rule, *ga* should be placed below *sa* (in the fourth series), but if *sa* is interposed with *ga* what we get is *sa ga ri ma*, which we already have in the preceding section of this permutational calculus. So *ga* will be related to *ri* and interposed with it. The rest of the notes will follow, yielding *ri ga sa ma*.

(vi) To form the sixth series *ri* will be placed below *ga* (in the fifth series) and interposed with it; the rest of the notes will follow as in the overhead series. Thus we get, *ga ri sa ma*.

It will be observed that hitherto the position of *ma* is unaffected, because we have six varieties in the tritone series. We cannot form any more series without affecting the position of *ma*.

(vii) To get the seventh series we have to place *ga* below *ri* and interpose with it. But that will result in the series *ri ga sa ma* which has already been formed. Similarly *ga* cannot as well be related to *sa*, for that will result in the series *ri sa ga ma* which is already formed. So, *ga* will now be related to *ma*, and what we get is *sa ri ma ga*.

Now, we can form five other series on the above pattern, in which we shall have *ga* in the fourth place. And so also we can form six other series with *ri* in the fourth place and six more with *sa* in the fourth place. That is how twentyfour note-series are formed into the permutational calculus of the tetratone note-series which is presented in the following order:

5. 'Behind' the placement of the preceding note i. e., to the left of it on the paper.
6. *Prastāra* is defined as the extension of the series of note-series in a particular permutational sequence, which has been explained above.

Permutational calculus of the tetratonic series

| Sl. No. with <i>ma</i> as the fourth | Note-series | Sl. No. with <i>ga</i> as the fourth | Note-series | Sl. No. with <i>ri</i> as the fourth | Note-series | Sl. No. with <i>sa</i> as the fourth | Note-series |
|--------------------------------------|-------------|--------------------------------------|-------------|--------------------------------------|-------------|--------------------------------------|-------------|
| 1 | sa ri ga ma | 7 | sa ri ma ga | 13 | sa ga ma ri | 19 | ri ga ma sa |
| 2 | ri sa ga ma | 8 | ri sa ma ga | 14 | ga sa ma ri | 20 | ga ri ma sa |
| 3 | sa ga ri ma | 9 | sa ma ri ga | 15 | sa ma ga ri | 21 | ri ma ga sa |
| 4 | ga sa ri ma | 10 | ma sa ri ga | 16 | ma sa ga ri | 22 | ma ri ga sa |
| 5 | ri ga sa ma | 11 | ri ma sa ga | 17 | ga ma sa ri | 23 | ga ma ri sa |
| 6 | ga ri sa ma | 12 | ma ri sa ga | 18 | ma ga sa ri | 24 | ma ga ri sa |

(Chart 21)

The process of formation is briefly presented in the following chart as per the rule stated in the text, and demonstrated up to seventh note-series as explained above.

The process of formation of the permutational calculus of the tetratonic series

| Sl. No. of the note-series | Notes transposed | Series obtained | Remarks |
|----------------------------|------------------|-----------------|-----------------|
| 1st series | | sa ri ga ma | This being the |
| 2nd series | sa for ri | ri sa ga ma | 1st series no |
| 3rd series | ri for ga | sa ga ri ma | series precedes |
| 4th series | sa for ga | ga sa ri ma | it and there is |
| 5th series | ga for ri | ri ga sa ma | no transposi- |
| 6th series | ri for ga | ga ri sa ma | tion of notes. |
| 7th series | ga for ma | sa ri ma ga | |

(Chart 22 a)

If the notes are 1, 2, 3, 4 we get the following picture of the first six series :

| No. of series | sa ri ga ma | Remarks |
|---------------|-------------|--------------------|
| 1st series | 1-2-3-4 | Original order |
| 2nd series | 2-1-3-4 | 1 transposed for 2 |
| 3rd series | 1-3-2-4 | 2 " " 3 |
| 4th series | 3-1-2-4 | 1 " " 3 |
| 5th series | 2-3-1-4 | 3 " " 2 |
| 6th series | 3-2-1-4 | 2 " " 3 |

(Chart 22 b)

Left hand
right hand
notes
Prastāra

Thus, the method of forming the permutational calculus of note-series has been explained in detail applying the rule to the tetratonic series for illustration. Similarly pentatonic, hexatonic and heptatonic series can also be worked out. Since this is a tedious process, a mathematical graph has been prepared to facilitate the recognition of note-series with reference to their serial number in the sequential order and their particular order of notes.

(vi) खण्डमेरुः

1. खण्डमेरु-निर्माणम्

सप्ताद्येकान्तकोष्ठानामधो ऽधः सप्त पङ्क्तयः ॥६३॥

तास्वाद्यायामाद्यकोष्ठे लिखेदेकं परेषु खम् ।

वेद्यतानस्वरमितान्यस्येत्तेष्वेव लोष्टकान् ॥६४॥

प्राक्पङ्क्तयन्त्याङ्कसंयोगमूर्ध्वाधःस्थितपङ्क्तिषु ।

शून्यादधो लिखेदेकं तं चाधो ऽधः स्वकोष्ठकान् ॥६५॥

कोष्ठसङ्ख्यागुणं न्यस्येत्खण्डमेरुरयं मतः ।

| स | रि | ग | म | प | ध | नि |
|---|----|---|----|----|-----|------|
| १ | ० | ० | ० | ० | ० | ० |
| | १ | २ | ६ | २४ | १२० | ७२० |
| | | ४ | १२ | ४८ | २४० | १४४० |
| | | | १८ | ७२ | ३६० | २१६० |
| | | | | ९६ | ४८० | २८८० |
| | | | | | ६०० | ३६०० |
| | | | | | | ४३२० |

इति खण्डमेरुः

(vi) *Khaṇḍameru* (permutation-indicator) : 63c-71

(1) The construction of the permutation-indicator: (63c-66b)

Let there be seven series of squares¹ commencing with seven squares and ending with one², arranged one below

The text of the verses 63c to 66b describes the method of drawing the mathematical graph which is devised to indicate *naṣṭa* and *uddiṣṭa*. *Naṣṭa* is a technical name of the musical problem in which what is given is the number of the note-series in question, and what is to be found out is its tonal form giving the order of notes in it; while *uddiṣṭa* denotes the musical problem in which the tonal form of the note-series is given and its serial number is to be found out. This graph, called *khaṇḍameru* (permutation-indicator), helps to solve these two musical problems jointly known as '*naṣṭa-uddiṣṭa*'.

The permutation-indicator is drawn by placing seven series of squares having seven, six, five, four, three, two and one squares each in due order one below the other. The graph is thus formed into the following pattern.

Permutation-indicator

| sa | ri | ga | ma | pa | dha | ni |
|----|----|----|----|----|-----|------|
| 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 2 | 6 | 24 | 120 | 720 |
| | | 4 | 12 | 48 | 240 | 1440 |
| | | | 18 | 72 | 360 | 2160 |
| | | | | 96 | 480 | 2880 |
| | | | | | 600 | 3600 |
| | | | | | | 4320 |

Khaṇḍameru

(Chart 23)

1. *Koṣṭha* literally means a chamber or an inner apartment, a store-room or space surrounded by walls. Here it is used in the sense of an enclosed space which in this case is in the form of a square.
2. Only the commencing and the ending number of the squares is given. What is implied is that if the first series has seven squares, the last will have one i. e., the second will have six, the third will have five, the fourth will have four, the fifth will have three, the

the other.⁸ Let no. 1 be written in the first⁴ square of the first⁵ series among them and let there be zero in the other squares. Pebbles⁶, corresponding to the number of tones in the note-series⁷ in question, may be placed in those very squares.⁸ (63c-64)

The figures filled in the squares of the graph have been worked out and are based on the permutational calculus of the permutational note-series as demonstrated earlier; for example, it was observed in the case of the tetratonic series that the twenty-four note-series were clearly divided into four groups distinguishable from each other on the basis of the notes *sa ri ga ma* being placed into the fourth position respectively in groups of six note-series. Similarly, the monotone series forms a group by itself, the bitone series forms two groups, so to say i. e., *sa-ri* and *ri-sa*.

The tritone series forms three groups viz.,

| | | |
|----------|----------|----------|
| sa ri ga | sa ga ri | ri ga sa |
| ri sa ga | ga sa ri | ga ri sa |

These note-series are formed into three groups where each note remains in the third position twice. Rest of the notes, it may incidentally be observed, are placed first in their ascending order and then in their descending order. Similarly, the pentatonic series has five groups in each of which one particular note viz., *pa* in the 'sa ri ga ma pa' series remains in the fifth position, in the fifth group. This is done

sixth will have two, and the seventh only one, as counted from top to bottom.

3. This order will form into vertical columns of squares distinguished from top to bottom and not from bottom to top.
4. The first square, as counted from left to right in the series of squares drawn on the paper.
5. The first series is the one that has seven squares and is on the top of the graph.
6. Pebbles are movable objects and are therefore instrumental in the working process of the graph called *khandameru*. The graph can also be utilised even without using the pebbles, by marking the squares appropriately. But the system of pebbles adopted here has the advantage of leaving the graph unaffected and thus rendering it usable for any number of times. However, if the squares of the graph are marked instead of using the pebbles, it could be used only once. Thus, the movable pebbles make the graph durable.
7. *Vedya-tāna* is the note-series the tonal form of which has to be ascertained. However, the type of the series, such as monotone, bitone, tritone, etc. is given, and therefore the pebbles are to be placed in the squares in accordance with the number of tones constituting the particular note-series.
8. That is, in the squares of the first series of seven squares, commencing from the first.

Let the sum total of the numbers of the last squares⁹ of the antecedent¹⁰ series be written below the zero in the subsequent series progressively in the respective squares¹¹, e. g., one (in the first instance); while in the squares below that¹² in vertical order, let the sum be multiplied by the

from right to left to keep the notes in the ascending order in the first instance. So also the hexatonics have six groups and the heptatonic or complete note-series have seven groups.

Now, the seven squares of the first horizontal series of the permutation-indicator represent the seven notes written from left to right, while the squares taken in their vertical order represent the number of groups of note-series in their permutational calculus; e. g., the first column has one square, for the monotone series has only one group; and similarly, the second column has two squares, for the bitone series has two groups of note-series. Again the third column has three squares, and so on with the seventh having seven squares representing its seven groups. This group indication is useful for solving the problems called *naṣṭa* and *uddiṣṭa* as will be explained presently.

Now, it will be easier to see how the different figures have been filled into the different squares of the indicator graph and what their significance is. The first column square represents the monotone series and has figure one written in it. In other words, in the first squares of the remaining six vertical columns (from top to bottom) is placed zero since the number of groups does not become manifest at the very outset as in the monotone series; e. g., in the bitone series the two groups *sa ri* and *ri sa* become groups only when they are two i. e., they are relative. The rest of the figures of the graph are arrived at in the following procedure.

The rule given in the text is that in the series of squares following or placed one below the other, one may write the total of the figure indicated in the last squares of the preceding series below the zero given in the overhead squares. That is to say that, if only one series of

9. The last squares of the series as counted from right to left.
10. Antecedent one or more than one series i. e., all the preceding series.
11. 'Urdhvādhah-sthita-pāṅktiṣu' is quite significant and points out the squares placed one below the other in the series of vertical columns, below the zero of the respective columns.
12. 'That' refers to the square in which the sum of the numbers of the last squares of the series formed till then is given.

number of the square concerned¹³ and the resultant written below that.¹⁴ This is considered to be the "permutation-indicator" (*khaṇḍameru*).¹⁵ (65-66b)

squares is preceding, then the total of the last square of that series be written in the last square (from right to left) of the succeeding series, i. e., the 2nd. If however, there are two preceding series, then the total of the last squares of both the series may be given below the zero in the third square of the second series of six notes.

However, if there are many preceding series, then the total of the figures given in their last squares may be added in the squares and given below the respective zeros in the first series. For example, in the column-square below the first zero, (1) is written, for the total given in the last square of its preceding series is one. Then, in the next square of the series below 2nd zero, we have 2 as the total of $(1+1=2)$ the last squares of the first and the second series. Again in the next square of the series below the third zero in the fourth column, we have 6 as the total of the last numbers of the first, second and the third series $(1+1+4=6)$. Similarly, the fourth square in the fifth column shows 24 as the total of the preceding last squares $(1+1+4+18=24)$; and so on. That is how the figures of the second series are computed.

For computing the figures of the subsequent series (i. e., from 3rd to the 7th) another method is suggested which cuts short the above process, for it would be cumbersome if applied further; and it consists in multiplying the sum thus obtained in the squares of the second series by the number of the respective column-squares thereunder. For example, to fill in the first square (from the left) of the 3rd (horizontal) series, we have figure 2 in the 2nd series above, and this being the 2nd square from it, multiplying 2×2 we get 4. 2 represents the sum total of the last squares of the preceding series' which is here multiplied by the number of the square to be filled in. Similarly, to fill in the next square in the same series (below *mā*), we have the figure 6 as the sum of the last squares of the preceding series which is multiplied by 2 to yield 12. Likewise, in the 4th vertical column (below *ma*) the last

13. The square concerned is the one in which the sum arrived at is given and is to be counted vertically from top to bottom.
14. The square below the one in which the sum of the addition referred to is given i. e., the last square in the vertical series.
15. *Khaṇḍameru* is a mathematical graph that indicates what is known as *naṣṭa* and *uddiṣṭa*, the terms that are to be explained presently. Both *naṣṭa* and *uddiṣṭa* are finally related to the sequential extension of the note-series; thus this graph actually works as the indicator of note-series.

square of the 4th series bears the figure 18 in the graph. This is found as per the same rule, i. e., 6 is obtained in the 2nd series of the same column as the sum of the last squares of the preceding series which is multiplied by 3, being the number of the square below the series (indicative of the sum). Other figures can similarly be worked out. This process can also be understood from the following two charts :

Computation of 2nd series of the indicator (The additive process)

| No. of column square in question left to right | Total of the last squares of the preceding series | | The figure obtained |
|--|---|--------------------|---------------------|
| | No. of series | Respective figures | |
| 1 | 1 | 1 | 1 |
| 2 | 1,2 | 1+1 | 2 |
| 3 | 1,2,3 | 1+1+1 | 6 |
| 4 | 1,2,3,4 | 1+1+1+18 | 24 |
| 5 | 1,2,3,4,5 | 1+1+1+18+96 | 120 |
| 6 | 1,2,3,4,5,6 | 1+1+1+18+96+600 | 720 |

(Chart 24)

Computation of 3-7 series of the indicator
(The process of multiplication)

| No. of series | Figure in the 2nd column square | Sl. No. of the square computed vertically from below the zero | Process of multiplication | | |
|---------------|---------------------------------|---|---------------------------|--------|----------------------------------|
| | | | Multipli- cation | Result | No. of the column squares filled |
| 3rd | 2 | 2 | 2×2 | 4 | 3rd |
| 4th | 6 | 2 | 6×2 | 12 | 3rd |
| | 6 | 3 | 6×3 | 18 | 4th |
| 5th | 24 | 2 | 24×2 | 48 | 3rd |
| | 24 | 3 | 24×3 | 72 | 4th |
| | 24 | 4 | 24×4 | 96 | 5th |
| 6th | 120 | 2 | 120×2 | 240 | 3rd |
| | 120 | 3 | 120×3 | 360 | 4th |
| | 120 | 4 | 120×4 | 480 | 5th |
| | 120 | 5 | 120×5 | 600 | 6th |
| 7th | 720 | 2 | 720×2 | 1440 | 3rd |
| | 720 | 3 | 720×3 | 2160 | 4th |
| | 720 | 4 | 720×4 | 2880 | 5th |
| | 720 | 5 | 720×5 | 3600 | 6th |
| | 720 | 6 | 720×6 | 4320 | 7th |

(Chart 25)

2. उद्दिष्ट-विधिः

स्वरान्मूलक्रमस्यान्त्यात्पूर्वं यावत्तथः स्वरः ॥६६॥

उद्दिष्टान्त्यस्तावत्तथे कोष्ठे ऽधो लोष्टकं क्षिपेत् ।

लोष्टचालनमन्त्यात्स्यात्त्यक्त्वा लब्धं क्रमो भवेत् ॥६७॥

लोष्टाक्रान्ताङ्कसंयोगादुद्दिष्टस्य मितिर्भवेत् ।

(2) The procedure for finding out the indicated note-series (*uddiṣṭa*) : (66c-68b)

Let the pebble be placed in the column-square¹ below² according to the number of the last note³ of the indicated note-series⁴ obtaining backwards⁵ with reference to the last note of its original order.⁶ The pebble movement starts

Having drafted the form of the permutation-indicator, the author now proceeds to explain its working, laying down the procedure for arriving at the solution of the two problems known as *naṣṭa* and *uddiṣṭa*. He takes the latter first for the convenience of demonstration.

Uddiṣṭa literally means 'that which is indicated', and in our context it implies the note-series indicated i. e., given; for example, "ma ga sa ri" is a tetratonic note-series and its tonal form is given, i. e., indicated; but its serial number in the permutational calculus of the tetratonic series is not given and is to be found out. That is how the name *uddiṣṭa* i. e., 'indicated note-series' becomes significant. The procedure for finding out the serial number of a given note-series is explained hereunder with reference to the text.

Let the given note-series be "ma ga sa ri"; its original order would be "sa ri ga ma." The last note of the indicated note-series in this case is *ri* which is placed 3rd from the last note *ma* as counted backwards in its original order. Since this is a four-tone series, the permutation-indicator would operate only for the first four columns (*sa* to *ma*).

1. The expression 'column square' is indicative of the vertical order of the squares of the permutation-indicator.
2. Below the respective zero in the first series.
3. Last note as counted from left to right.
4. *Uddiṣṭa* is literally the note-series indicated, and what is sought to be found out from the permutation indicator is its serial number.
5. That is from right to left.
6. The order of the notes in the original series.

with the last note⁷ and is ordered" by dropping the note ascertained progressively. The number⁸ of the indicated The movement of the pebbles commences with the last note i. e., the last square which is fourth. *Ri* is 3rd with reference to the last note of the original order of the series. Therefore, the pebble of the fourth column will now be placed in the third square below the zero which indicates No. 12. To take the next step, the note ascertained i. e., *ri* is to be dropped from the original order as well as from the indicated note-series. So, the original order now obtained is "sa ga ma"; while the given series is "ma ga sa." *Sa*, now is [second with reference to the *ma* of the original order. So the second pebble, since this series is of three notes, will now be placed in the second square of the third column, which indicates 4. In the third step *sa* will drop away and the original order obtained will be "ga ma;" while the given series would be "ma ga." Its *ga* is in the first order (i. e., next to) with reference to the *ma* of the original order; therefore, the third pebble will be moved to the first column below zero in the second column since this is a bitone series now. This square indicates 1. In the fourth step, even *ga* will drop away and what remains is the monotone-series of *ma*. Since in this case the original order and the indicated note-series are identical, so there will be no movement of the pebble and there is no square below the first which indicates 1. Thus, the total of the squares with pebbles is 18 (12+4+1+1). So the serial number of the note-series "ma ga sa ri" is 18th in the permutational extension of the four-tone series.

This procedure is summarised in the following chart :
Pebble-movement in the permutation-indicator for indicated tetratonic permutational note-series.

The indicated note-series : "ma ga sa ri"

| Step no. | Original order | The last note of indicated series | The No. of the last-note with reference to the original order | The place of the pebble | | | Note dropped |
|----------|----------------|-----------------------------------|---|-------------------------|------------|--------|--------------|
| | | | | Col. no. | Square no. | Figure | |
| 1st | sa ri ga ma | ri | 3rd | 4 | 3 | 12 | ri |
| 2nd | sa ga ma | sa | 3rd | 3 | 3 | 4 | sa |
| 3rd | ga ma | ga | 2nd | 2 | 2 | 1 | ga |
| 4th | ma | ma | 1st | 1 | 1 | 1 | — |

(Chart 24)

7. The last note of the note-series indicated i. e., from left to right.
8. That is, in the next step the original order is restored by dropping the last note of the note-series ascertained.

note-series would be obtained by adding up the figures (of the squares) covered by the pebbles.¹⁰ (66c-68b)

The number of the indicated series in the permutational extension of the tetratonic permutational note-series : $12+4+1+1=18$.

Thus, the formula for finding out the number of the indicated note-series can briefly be restated as under in terms of action :

- (i) Find out the relative position of the last note of the indicated note-series with reference to the last note of its original order by counting from it backwards i.e., from right to left including the last note.
- (ii) Move the pebble into the corresponding square down below according to the result obtained in (i) i.e., as many squares down below as the number of the last-note obtained in (i).
- (iii) The pebble should be moved from the last note of the series.
- (iv) Having thus ascertained the numerical value of one note, that note be dropped progressively from the original order as well as the indicated note-series and the procedure (i) to (iii) repeated till the first note.
- (v) Add up the figures of the column squares into which the pebbles have been moved and the sum total will represent the serial number of the indicated note-series in its permutational extension.

This explains the procedure of working out the problem *uddiṣṭa*. Now, an example from a complete permutational note-series is taken for a full demonstration, which is worked out as under in a tabular form :

1. *Uddiṣṭa* (the problem), "ma ga sa ri dha ni pa" (i.e., the indicated note-series).
2. Original order of the series : "sa ri ga ma pa dha ni".
3. Pebble movement of a complete permutational note-series.
4. Serial No. of the indicated note-series in the permutational extension of the complete series : total of column 3(c) i.e. $(1440+0+0+12+4+1+1)=1458$ th.

9. This is the serial number of the particular note-series in its permutational calculus which is to be ascertained.
10. The total of the numbers of the squares in which the pebbles are placed is the required number of the given note-series.

| Sl. No. of the steps taken | The relative position of the last note of the indicated series with reference to the last note of the original order i.e., the original-series | | | The pebble movement and its significance | | | Results obtained | | |
|----------------------------|--|-------------------------------------|--|--|--|---|--|---|------|
| | 1 | 2(a) | 2(b) | 2(c) | 3(a) | 3(b) | 3(c) | 4(a) | 4(b) |
| | The last note of the given series | The last note of the original order | Relative position of 2(a) with reference to (right to left) 2(b) | No. of column (left to right) | No. of square to which pebble is moved | The figure indicated by the occupied square | The note omitted from the original order | The remaining order of notes in the original series | |
| 1 | pa | ni | 3rd | 7th | 3rd | 1440 | pa | sa ri ga ma dha ni | |
| 2 | ni | ni | 1st | 6th | no movement | 0 | ni | sa ri ga ma dha | |
| 3 | dha | dha | 1st | 5th | —do— | 0 | dha | sa ri ga ma | |
| 4 | ri | ma | 3rd | 4th | 3rd | 12 | ri | sa ga ma | |
| 5 | sa | ma | 3rd | 3rd | 3rd | 4 | sa | ga ma | |
| 6 | ga | ma | 2nd | 2nd | 2nd | 1 | ga | ma | |
| 7 | ma | ma | 1st | 1st | No movement | 1 | ma | nil | |

(Chart 25)

3. नष्टविधिः

यैरङ्कैर्नष्टसंख्या स्यान्मौलैकाङ्कसमन्वितैः ॥६८॥

तेषु लोष्टं क्षिपेन्मूले लोष्टस्थानमितं भवेत् ।

नष्टतानस्वरस्थानं ततो यावत्तिथे पदे ॥६९॥

अधःक्रमादस्ति लोष्टः स्वरस्तावत्तिथो भवेत् ।

क्रमान्तिमस्वरात्पूर्वो लब्धत्यागादि पूर्ववत् ॥७०॥

(3) The procedure for finding out the missing note-series (*naṣṭa*) : (63c-70)

Let the initial¹ pebbles be placed in the respective² squares, the sum total of the figures of which would constitute the number³ of the 'missing note-series'⁴ inclusive of the figure 1 in the first column square.⁵ The note-positions⁶ of

Naṣṭa is the name given to the note-series, the tonal form of which is lost sight of and is required to be discovered with the help of the note-series indicator. The type of the note-series such as complete, hexatonic, pentatonic etc. indicative of the number of notes in it and its serial number in the permutational extension is given. Thus, the problem of *naṣṭa* essentially consists in discovering the tonal form (i. e. the order of notes) of a given serial number of the permutational note-series lost to us. *Naṣṭa* may therefore be called 'the missing note-series'.

The formula or the rule for discovering the tonal form of the given note-series implies the following procedure in terms of action :

- (i) Place the pebbles in the squares of the first horizontal series of the indicator in as many squares as there are the notes in the given series, from left to right.
- (ii) Move the pebbles into the column squares down below, so that the figures indicated by them when added make up the number of the given series.

1. The word 'initial' qualifying pebbles is indicative of the original position of the pebbles in the first series of the permutation indicator with the figure 1 in the left end first square and zeros in the others.
2. That is the squares in the vertical columns, on a pebble being placed in each of the series.
3. The serial number of a particular note-series obtaining in the permutational calculus.
4. *Naṣṭa* of the text literally means 'that which is destroyed'; but the term is figuratively employed in a technical sense. *Naṣṭa* refers to that note-series (*tāna*), the tonal form of which is lost sight of, but in respect of which the serial number and the type (i. e., monotone, bitone, hexatone, etc.) is given in order that its tonal form may be discovered with the help of the note-series indicator. *Naṣṭa*, therefore, essentially refers to a note series which is lost so far as its tonal form is concerned. That is why it has been rendered into English as the 'missing note-series.'
5. The first square at the left end of the first series.
6. The expression 'note-position' refers primarily to the relative position of notes in the lost note-series; and secondarily to the position of the pebbles i. e., the squares in which they

the missing note-series are to be determined from the pebble-squares⁷, the serial number of the squares down below⁸ being indicative of the relative backward⁹ position of the

- (iii) Every column is indicative of a particular note. The serial number of the square into which the pebble is moved from the top indicates its relative position in the given series when compared to the last note of the original order. So place it accordingly.
- (iv) Drop the note ascertained from the original order as well as the given note-series out of view and repeat the procedure laid down in (i) to (iii), till the position of the first note of the series is discovered.
- (v) Place the notes in their relative order, as ascertained and the 'missing note-series' is found.

Now this procedure is demonstrated with an example as follows :

(i) Given particulars :

- (a) Serial No. 18 of the tetratonic series.
- (b) Note-series indicator with four column-squares.
- (c) Original order : *sa ri ga ma*.

(ii) Action :

1. Place the pebbles initially in the squares of the first series indicating 1 and 3 zeros.
2. Deduct 1, the figure of the left end square of the first series which is essentially to be taken from 18, the serial number of the series $(18 - 1) = 17$. So we have to add up to 17. Therefore, take 12 from the 3rd sq. of column 4 as the next figure exceeds our requirement.
3. Then deduct 12 from 17 and we have 5 yet to add up. Take 4 from the 3rd square of column 3.
4. Then deduct 4 from 5 and we have 1 left to be added. 1 is available in square 2 of column 2. Square 1 of column 1 is already taken into consideration.
- are moved to indicate the order of notes in the 'missing note-series.' Thus, there would be as many pebbles as there are notes in the series.
7. The pebble-squares are the squares in which the pebbles are initially lodged. Plural expression is used for the abstract singular of the text to bring out its actual implication.
8. Down below in the vertical columns i. e., the squares into which the pebbles are moved.
9. Backward order is from right to left.

respective notes with reference to the last note of the original order¹⁰; while the rule for dropping the ascertained note etc.¹¹ would apply as before.¹² (68c-70)

5. We get these numbers in the series 1-2-3-3 corresponding to the serial number of squares in the respective columns. Now relate this series to the original order "sa-ri-ga-ma". Place *ri* as the last note of the 'missing note-series', for it is 3rd from *ma*, the last note of the original series.

6. Drop *ri* and restore the original order to "sa-ga-ma" and the numbers in the series to 1-2-3. Then repeat the process.

7. Place *sa* anterior to *ri* in the process of finding out the 'missing note-series' as *sa* is 3rd from *ma*.

8. Drop *sa* and 3 respectively from the original order and the numerical series, and then restore them to "ga-ma" and 1-2 respectively and repeat the process.

9. Place *ga* anterior to "sa-ri" discovered through the process, for *ga* is 2nd to *ma* in the original order and corresponds to the figure 2 in the given numerical series. So we get "ga sa ri".

10. Drop *ga* from the original order and 2 from the numerical series. Now we are left with *ma* which corresponds to 1 of the numerical series and the left-end square of the 1st series i. e., the first column square. So put *ma* anterior to "ga sa ri" already obtained. We get "ma ga sa ri".

11. The 'lost note-series' is discovered to be "ma ga sa ri" which corresponds to its given serial number 18 in the tetratonic series.

It will be observed that wherever the original order coincides with the numerical series the note-position of the tone in question remains the same.

An example of a complete permutational note-series is also demonstrated in the following chart.

(i) The problem : To find out the tonal form of the 'missing note-series' of heptatonic type bearing serial No. 1000.

10. The original order corresponds to the *mūrcchana*-series.
11. At every step as in the case of *uddiṣṭa*, i. e., the process of the indicated note-series, the note ascertained would be dropped out of view.
12. 'S' infers that 'etc.' in the text is indicative of the direction that, with the 'missing note-series' of, say five notes, the permutation indicator will have five series of square-columns, that of six notes will have six and that of seven will have

(ii) The original order : "sa ri ga ma pa dha ni".

(iii) Procedure in action.

Discovering the 'lost note-series' of complete permutational note-series

| Col. squares add upto 1000* | | | Relative position of notes | | Effect of action | | Order of discovered notes | | |
|-----------------------------|---------|--------|-----------------------------|---|------------------|---------------------------------------|---------------------------|--------|-----------------------|
| 1 | | | 2 | | 3 | | 4 | | |
| Col. No. | Sq. No. | Figure | Last note of original order | Corresponding note of given series found as per 1 (b) | Note dropped | Order of the original series restored | | | |
| (a) | (b) | (c) | (a) | (b) | (a) | (b) | | | |
| | | | Note (i) | Position (ii) | | | | | |
| 7 | 2 | 720 | ni | dha | 7th | dha | sa-ri-ga | 000000 | dha |
| | | | | | | | ma-pa-ni | | |
| 6 | 3 | 240 | ni | ma | 6th | ma | sa-ri-ga- | 00000 | ma dha |
| | | | | | | | pa-ni | | |
| 5 | 2 | 24 | ni | pa | 5th | pa | sa-ri-ga- | 0000 | pa-ma-dha |
| | | | | | | | ni | | |
| 4 | 3 | 12 | ni | ri | 4th | ri | sa-ga-ni | 000 | ri-pa-ma-dha |
| 3 | 2 | 2 | ni | ga | 3rd | ga | sa-ni | 00 | ga-ri-pa-ma-dha |
| 2 | 2 | 1 | ni | sa | 2nd | sa | ni | 0 | sa-ga-ri-pa-ma dha |
| 1 | 1 | 1 | ni | ni | 1st | ni | — | | ni-sa-ga-ri-pa-ma-dha |

(Chart 26)

(iv) Thus the 1000th note-series is discovered to be "ni-sa-ga-ri-pa ma-dha" in the complete series.

*Explanation : The computation of this column of the chart is explained as under, step by step :

(i) Deduct 1 of the first square column which is essentially to be taken $1000 - 1 = 999$. Now we have to make up the total for 999.

(ii) Take 720 in column 7 as the next square below given 1440 which exceeds 999. Deduct 720 from 999 ($999 - 720 = 279$). Thus we have to add upto 279 now.

(iii) Take 240 from column 6 for the next square offers 360 which exceeds 279. Now we have ($279 - 240 =$) 39 to add up.

(iv) Similarly, take 24 from column 5 and we have ($39 - 24 =$) 15 more to add up.

(v) Then take 12 from column 4 and we have ($15 - 12 =$) 3 more to add up.

(vi) Then take 2 from column 3 and we have 1 more to add.

(vii) Finally take 1 from column 2 and get the columnwise total as $720 + 240 + 24 + 12 + 2 + 1 + 1 = 1000$.

4. खण्डमेरुत एकस्वरादितानानां सङ्ख्या-परिज्ञानोपायः

तानस्वरमितोर्ध्वाधःपङ्क्तिगान्त्याङ्कमिथणात् ।

एकस्वरादितानानां संख्या संजायते क्रमात् ॥७१॥

(4) The number of permutational note-series in each of the series as shown by the permutation-indicator : (71)

The number of note-series in monotone² etc. is computed by adding up the figures of the last column-squares²

The note-series indicator does not merely show the indicated note-series and the 'missing note-series', but it also informs us with regard to the total number of note-series in each of the different types such as heptatonic, hexatonic, monotonic, etc.

As many notes there are in a given note-series (e. g. seven in the complete and one in the monotone series) so many end-squares of these columns will be taken into consideration and figures indicated by them when added up would in their sum-total indicate the number of note-series in that type.

The following chart shows the working of this relationship.

—The number of note series in each type derived from the permutation-indicator

| The final note of the series in its original order | Name of the type of the series | Column squares | | Figures of the last column sqs. | | Sum total of last squares | |
|--|--------------------------------|-----------------|---------------|---------------------------------|--------------------------|----------------------------------|-------|
| | | S. No. of cols. | No. of square | S. No. of last col sq. | Figure of last indicated | Figures added | Total |
| sa | Monotone series | 1 | 1 | 1st | 1 | 1 | 1 |
| ri | Bitonic " | 2 | 2 | 2nd | 1 | 1+1 | 2 |
| ga | Tritonic " | 3 | 3 | 3rd | 4 | 1+1+4 | 6 |
| ma | Tetratonic " | 4 | 4 | 4th | 18 | 1+1+4+18 | 24 |
| pa | Pentatonic " | 5 | 5 | 4th | 96 | 1+1+4+18 +96 | 120 |
| dha | Hexatonic " | 6 | 6 | 5th | 600 | 1+1+4+18 96+600 | 720 |
| ni | Complete or heptatonic " | 7 | 7 | 7th | 4320 | 1+1+4+18 96+600 +4320=5040 | |

(Chart 27)

1. In each type of the permutational note-series such as monotone, bitone, hexatonic, complete, etc.
2. The squares at the bottom and of the vertical series arranged into the columns of the permutation-indicator.

corresponding respectively⁸ to the notes in the series.⁴ (71)

It will be observed that every total incorporates the total of its antecedent squares. Thus, in effect, to find out the total number of note-series of a particular type what may essentially be taken into account is the figures indicated in the squares just below the zero and the last squares of the respective columns, as the squares immediately below the zero indicate the total number of the preceding series. For example, the total number of the complete permutational note-series is found to be 5040, but this figure is composed of the figures shown in the squares immediately below the zero of the 7th column as the 7th. square i. e., $720+4320=5040$. So also the figure 720 is composed of $120+600=720$.

Incidentally, this shows that the zeros placed in the first squares of the columns are symbolic of the figures indicated into the last squares of the antecedent columns and are therefore identical with them. That is how the zeros become significant.

It may now be observed that the *Khaṇḍameru* i. e., the permutation-indicator has a three-fold function viz., (i) to find out serial number of the note-series indicated, (ii) to discover the tonal form of a given number of note-series, and (iii) to ascertain the total number of note-series in each of the seven types of permutational note-series.

(vii) शुद्धतान-नामानि

1. षड्जग्रामस्थ-षाडव-शुद्धतानाः

अथात्र शुद्धतानानां नामानि व्याहरामहे ।

अग्निष्टोमो ऽग्निष्टोमो वाजपेयश्च षोडशी ॥७२॥

पुण्डरीको ऽश्वमेधश्च राजसूयस्ततः परः ।

इति स्युः षड्जहीनानां सप्त नामान्यनुक्रमात् ॥७३॥

स्विष्टकृद्बहुसौवर्णो गोसवश्च महाव्रतः ।

विश्वजिद्ब्रह्मयज्ञश्च प्राजापत्यस्तु सप्तमः ॥७४॥

- 3 & 4. Each column is indicative of a note i. e., the first column square for *sa*, the second for *ri* and so on. So the figures of these last column-squares only have to be taken into account, the notes pertaining to which go to constitute the series in question. Series denotes the note-series.

क्रमादृषभहीनानां तानानामभिधा इमाः ।
 अश्वक्रान्तो रथक्रान्तो विष्णुक्रान्तस्ततः परः ॥७५॥
 सूर्यक्रान्तो गजक्रान्तो बलभिन्नागपक्षकः ।
 इति पञ्चमहीनानां संज्ञाः सप्त क्रमान्मताः ॥७६॥
 चातुर्मास्यो ऽथ संस्थाऽऽख्यः शस्त्रश्रोक्थश्रुतुर्थकः ।
 सौत्रामणी तथा चित्रा सप्तमस्तूद्भिदाह्वयः ॥७७॥
 संज्ञा निषादहीनानां षडवानामिमाः क्रमात् ।

(vii) The names of the combinational note-series : 72-90

(a) The hexatonic combinational note-series of the *ṣaḍja-grāma* : (72-78b)

Now, we give herewith the names of the combinational¹ note-series. (72ab)

1. The names of the seven note-series devoid of *ṣaḍja* respectively² are—*agniṣṭoma*³, *atyagniṣṭoma*, *vājapeya*, *ṣodaśī*, *puṇḍarīka*, *aśvamedha* and *rājastūya*. (72c-73b)

2. The names of the note-series devoid of *ṛṣabha* respectively are—*sviṣṭakṛt*, *bahusauvarṇa*, *gosava*, *mahāvṛata*, *viśvajit*, *brahmayajña* and *prajāpati*. (73c-75b)

3. The seven names for (the note-series) omitting *pañcama* are respectively considered to be *aśvakraṅta*, *rathakraṅta*, *viṣṇukraṅta*, *sūryakraṅta*, *gajakraṅta*, *valabhit* and *nāgapakṣaka*. (75c-76)

4. The names for the hexatonic (combinational note-series) eliminating *niṣāda* respectively are *cāturmāsya*, *saṃsthā*, *śāstra*, *uktha*, *saurāmaṇī*, *citrā* and *udbhīd*. (77-78b)

Having dealt with the permutational note-series in great detail, the author now incidentally proceeds to give the names of the significant combinational note-series with a view to refer to their merit.

He takes only the hexatonic and the pentatonic note-series of both the *grāma-s* respectively, and first he gives the names of the hexatonic series and then the pentatonic series.

1. *Sūddha* of the text.
2. That is in the order of *mūrccana*-series.
3. This and the following names pertain to vedic sacrifices. These names pertain to the note-series of the *ṣaḍja-grāma*.

2. मध्यमग्रामस्थषाडवशुद्धतानाः

सावित्री चार्धसावित्री सर्वतोभद्रसंज्ञकः ॥७८॥

आदित्यानामयनश्च गवामयननामकः ।

सर्पाणामयनः षष्ठः सप्तमः कौणपायनः ।

नामानि षड्जहीनानां तानानामिति मेनिरे ॥७९॥

अग्निचिद् द्वादशाहश्रोपांशुः सोमाभिधस्ततः ;

अश्वप्रतिग्रहो वहिरथाभ्युदयसंज्ञकः ॥८०॥

ऋषभेण विहीनानामिति नामानि मन्वते ।

सर्वस्वदक्षिणो दीक्षा सोमाख्यः समिदाह्वयः ॥८१॥

स्वाहाकारस्तनूनपात्ततो गोदोहनो मतः ।

इति गान्धारहीनानां क्रमात्संज्ञाः प्रचक्षते ॥८२॥

(b) The hexatonic combinational note-series of the *madhyama-grāma* : (78c-82)

5. The names of the note-series¹ eliminating *ṣaḍja* are respectively known to be—*sāvitrī*, *ardha-sāvitrī*, *sarvatoḥhadra*, *ādityāyana*², *gavāmayana*³, *sarṣāyana*⁴ and *kaṇṇapāyana*.⁵ (78c-79)

1. The (specific) combinational note-series of the *madhyama-grāma*.
2. The expression '*ādityānam ayanah*' of the text has been rendered as *ādityāyana* for semantic considerations; but it needs an elaboration. *Āditya* has several meanings such as the sun, the dwarf incarnation of Viṣṇu, god in general, and so on. But since here the plural is used we may take it etymologically in the sense of 'the sons of *Aditi*' i. e., the gods. *Ayana* too has several connotations such as the path, the way, the passage of the sun, and abode etc. of which the last one seems to be appropriate in this context. So the expression as a whole would literally mean 'the abode of gods'.
3. The expression *gavāmayana* similarly signifies 'the abode of cows'.
4. Also the expression *sarṣāyana* is a compound rendering of *sarṣāṇām ayanā* in the text which literally means the abode of serpents.
5. *Kaṇṇapa* literally means a goblin, a demon. So, *kaṇṇapāyana* literally signifies the abode of demons.

3. षड्जग्रामस्थौडुवशुद्धतानाः

इडा पुरुषमेघश्च श्येनो वज्र इषुस्ततः ।
 अङ्गिराः कङ्क इत्येताः सपहीनाभिधाः क्रमात् ॥८३॥
 ज्येतिष्ठोमस्ततो दशो नान्द्याख्यः पौर्णमासकः ।
 अश्वप्रतिग्रहो रात्रिः सौभरः सप्तमः स्मृतः ॥८४॥
 एता निषादगान्धारहीनानामभिधाः क्रमात् ।
 सौभाग्यकृच्च कारीरी शान्तिकृत्पुष्टिकृत्तथा ॥८५॥
 वनतेयोच्चाटनौ च वशीकरणसंज्ञकः ।
 पञ्चमर्षभहीनानां तानानामभिधा इमाः ॥८६॥

6. The names of (the note-series) devoid of *ṛṣabha* are believed to be—*agnicit*, *dvadaśāha*, *upāmsu*, *soma*, *aśvapratigraha*, *barhi* and *abhyudaya*. (80-81b)

7. The names of (the note-series) devoid of *gāndhāra* are respectively said to be *sarvasvadakṣiṇa*, *dīkṣā*, *soma*, *samit*, *svāhākāra*, *tanūnapāt* and *godohuna*. (81c-82)

(c) The pentatonic combinational note-series of *ṣaḍja-grāma* : (83-86)

1. The names of (the note-series)⁶ eliminating *ṣaḍja* and *pañcama* respectively are as under :

Idā, *puruṣamedha*, *śyena*, *vajra*, *iṣu*, *angirā* and *kaṅka*. (83)

2. The names of (the note-series) omitting *niṣāda* and *gāndhāra* respectively are *jyotiṣṭoma*, *darśa*, *nāndī*, *paurṇamāsa*, *aśvapratigraha* and *saubhara*. (84-85b)

3. The names of the note-series leaving out *pañcama* and *ṛṣabha* respectively are—*saubhāgyakṛt*, *kārīrī*, *śāntikṛt*, *puṣṭikṛt*, *vainateya*, *uccāṭana* and *vaśikaraṇa*. (85c-86)

6. These note-series pertain to the *ṣaḍja-grāma*.

4. मध्यमग्रामस्थौडुवशुद्धतानाः

त्रैलोक्यमोहनो वीरः कन्दर्पबलशातनः ॥८७॥
 शङ्खचूडो गजच्छायो रौद्राख्यो विष्णुविक्रमः ।
 तानानां रिधहीनानां नामान्येतान्यनुक्रमात् ॥८८॥
 भैरवः कामदाख्यश्चावभृथो ऽष्टकपालकः ।
 स्विष्टकृच्च वषट्कारो मोक्षदः सप्तमो मतः ॥८९॥
 संज्ञा निषादगान्धारहीनानामिति संमताः ।

(viii) शुद्धतानानां वैदिकनाम्नां तत्त्वज्ञफलम्

यद्यज्ञनामा यस्तानस्तस्य तत्फलमिष्यते ॥९०॥

(d) The pentatonic combinational note-series of the *madhyama-grāma* : (87-90b)

1. The names of the note-series eliminating *ṛṣabha* and *dhaivata* respectively are *trailokyamohana*, *vīra*, *kandarpabalaśātana*, *śaṅkhacūḍa*, *gajacchāya*, *raudra* and *viṣṇuvikrama*. (87-88)

2. The names of the note-series devoid of *niṣāda* and *gāndhāra* are believed to be *bhairava*, *kāmada*, *avabhṛtha*, *aṣṭaka-pālaka*, *sviṣṭakṛt*, *vaṣaṭkāra* and *mokṣada*. (89-90)

(viii) The functional purpose of the vedic names of combinational note-series : 90cd

It is believed¹ that the note-series² bearing the name of a particular vedic sacrifice is effectual in bringing about the corresponding³ benefit. (90cd)

1. By the ancients, the preceding music-authorities.

2. The combinational note-series are meant.

3. That is, if the note-series bears the name of *aśvamedha* sacrifice, it would bring about the benefit afforded by that sacrifice, provided it is appropriately employed.

(ix) गान्धर्वे गाने च शुद्धकूटतानानामुपयोगः

गान्धर्वे मूर्च्छनास्तानाः श्रेयसे श्रुतिचोदिताः ।

गाने स्थानस्य लाभेन ते कूटाश्रयोपयोगिनः ॥९१॥

(ix) The specific use of the combinational and permutational note-series in *gāndharva* and *gāna* : 91

In the context of *gāndharva*⁴, the *mūrccchanā* s⁶ and the combinational note-series have been ordained in the vedic lore⁶ for the attainment of beatitude; while in *gānam*⁷, these along with the permutational note-series are useful in obtaining *sthāna*⁸. (91)

The commentators do not offer any explanation with regard to the names of various vedic sacrifices having been attributed to the different note-series. However, it seems that it is an extension of the basic attitude of the vedic tradition towards all aspects of human activity. This attitude was responsible for the formulation of the four *upaveda-s* (*Āyurveda* or *Arthaśāstra*, *Gāndharvaveda*, *Dhanurveda* and *Śhāpatyaveda*), the fifth veda-s (*Mahābhārata* and *Nāṭyaveda*), the six *Vedaṅga-s* etc.

4. *Gāndharvam* is the ancient name for what later came to be known as *mārga*, when employed against the term *deśī* (regional music) as explained by 'S'. These terms will be dealt with properly in the subsequent chapters of the text. (cf. Chapter IV 1-4).
5. 'K' thinks that only standard *mūrccchanā-s* are meant.
6. *Śruti* in this context signifies any vedic passage. 'K' includes the *smṛti-s* also in its significance.
7. *Gāna* is the counterpart of *gāndharva*, later known as *deśī* (regional) music which was much more liberal and rich in variety. Since *kūṭa-tāna* (permutational note-series) has not been spoken of by Bharata, Śāringadeva specifically limits it to non-*gāndharva* music.
8. *Sthāna* has been interpreted by 'K' as *adhāraśruti* (note-*śruti*) of *svāra*, whereas 'S' interprets it as *sthāya* (a melodic phrase). The interpretation of 'K' is relevant to *mūrccchanā* and *śuddhātāna* and that of 'S' to *kūṭa-tāna* which serves as the canvas for melodic diversity.

अथ पञ्चमं साधारणप्रकरणम्

(i) द्विविधं साधारणं, तत्र स्वरसाधारणम्

साधारणं भवेद् द्वेषा स्वरजातिविशेषणात् ।

स्वरसाधारणं तत्र चतुर्धा परिकीर्तितम् ॥१॥

काकल्यन्तरषड्जैश्च मध्यमेन विशेषणात् ।

Section 5

OVERLAPPING (Sādhāraṇa)

(i) Twofold overlapping and the overlapping in note-intervals : 1-2b

Overlapping (*sādhāraṇa*) is twofold as it pertains¹ to the tones (*svāra-s*) and to *jāti-s* (the melodic types). Of these two, the overlapping of notes (*svāra-sādhāraṇa*) is said to be

The concept of *sādhāraṇa*, as applied to music is elucidated by Bharata on the analogy of *kāla-sādhāraṇa* i. e., the overlapping of seasons : "If one perspires by remaining in the sun and yet feels cold staying in the shade neither the winter has ended, nor (can it be said that) the spring has arrived" (N. S., G. O. S. Vol. IV. 28. 34). This is an instance of the overlapping of the winter and the spring on their borders. Thus, the concept implies the conjunction of the end portion of a prior situation and the beginning portion of the following situation, creating a new situation that partakes partly of the characteristics of both and is thereby different from both of them individually. The application of this concept to the note-intervals is to be explained presently. According to Bharata the overlapping (*sādhāraṇa*) means the quality of a note rising between two (consecutive) notes (Eng. Trans. M. Ghosh, N. S. Vol. II, XXIII 35, p. 13).

The *jāti-sādhāraṇa* or the overlapping of melodic types is dealt with in Section VII; here we are concerned only with *svāra-sādhāraṇa* or the overlapping of note-intervals which is related to four notes in particular,

1. Literally, "as it is qualified by *svāra-s* and *jāti-s*".

fourfold as it is concerned² with *kākali* (*niṣāda*) *antara* (*gāndhāra*), *ṣaḍja* and *madhyama*. (1-2b)

viz. *kākali-niṣāda*, *antara-gāndhāra*, *ṣaḍja* and *madhyama*. Thus, *sādhāraṇa* (overlapping) is fourfold as it is qualified by these four notes and is respectively called *kākali-sādhāraṇa* (the overlapping of *kākali*), *antara-sādhāraṇa* (the overlapping of *antara*), *ṣaḍja-sādhāraṇa* (the overlapping of *ṣaḍja*) and *madhyama-sādhāraṇa* (the overlapping of *madhyama*).

(ii) काकल्यन्तरसाधारणम्

साधारणः काकली हि भवेत्षड्जनिषादयोः ॥२॥

साधारण्यमतस्तस्य यत्तत्साधारणं विदुः ।

अन्तरस्यापि गमयोरेवं साधारणं मतम् ॥३॥

(ii) The overlapping of *kākali* and *antara*: 2c-3

Since the overlapping (*sādhāraṇa*)¹ *kākali* occurs between *niṣāda* and *ṣaḍja*, its² overlap³ (*sādhāraṇya*) is known as overlapping (*sādhāraṇa*)⁴. The overlapping of *antara* is similarly conceived between *gāndhāra* and *madhyama* (2c-3)

In the process, technically known as the overlapping of *kākali*, two notes are involved, and the author is here explaining how they are affected in this process, which elsewhere has also been referred to as the kakalisation of *niṣāda*, and also why it is so called.

In the *ṣaḍja-grāma*, *niṣāda* has two *śruti*-s (21st and 22nd) and *ṣaḍja* has four (1st-4th). It has already been explained (I. 3.40 ante) that in the kakalisation (*kākalitva*) of *niṣāda*, *kākali-niṣāda* is formed by the conjunction of *niṣāda* and *ṣaḍja* to the extent of two *śruti*-s of each, i. e., 21st and 22nd *śruti* of *niṣāda* and the 1st and the 2nd *śruti* of *ṣaḍja*. Thus, *kākali* is of four *śruti*-s and is situated equidistant from both *niṣāda* as well as *ṣaḍja*. It partakes of the characteristics of both since it is constituted by two *śruti*-s contributed by each and is yet different from each of them since its note-*śruti* is different (2nd or 24th).

2. Literally, "as it is qualified by *kākali*, *antara*, *ṣaḍja* and *madhyama*".

1. *Sādhāraṇa* qualifies *kākali*.

2. That is, the overlapping in the formation of *kākali*.

3. *Sādhāraṇya* is defined by 'K' as "*sādhāraṇasya bhāvaḥ*" i. e., the essence or the quality of overlapping. It implies the sense of "overlapping-ness", though such a word is not in usage.

4. *Sādhāraṇam* stands for the abstract noun *sādhāraṇyam*.

However, *kākali-sādhāraṇa* affects the two notes *niṣāda* and *ṣaḍja* quite differently; whereas it absorbs the note-*śruti* of *niṣāda*, it does not affect the note-*śruti* of *ṣaḍja* and that is one reason why it is called *kākali-niṣāda* i. e., because it affects *niṣāda* in categorically a different way in so far as it completely absorbs it.

Antara-sādhāraṇa i. e., the overlapping of *antara* is similarly conceived between *gāndhāra* and *madhyama*, affecting these two notes in the same way in the terms explained above; and consequently takes the name "*antara-gāndhāra*" on the pattern of "*kākali-niṣāda*". Thus *antara* is constituted of the two *śruti*-s (8th and 9th) of *gāndhāra* and two *śruti*-s (10th and 11th) of *madhyama*, absorbing the note-*śruti* of the former and leaving the note-*śruti* of the latter un-affected.

(iii) काकल्यन्तर-प्रयोगविधिः

प्रयोज्यौ षड्जमुच्चार्य काकलीधैवतौ क्रमात् ।

एवं मध्यममुच्चार्य प्रयुञ्जीतान्तरर्षभौ ॥४॥

षड्जकाकलिनौ यद्वोच्चार्य षड्जं पुनर्ब्रजेत् ।

तत्परान्यतमं चैवं मध्यमं चान्तरस्वरम् ॥५॥

प्रयुज्य मध्यमो ग्राह्यस्तत्परान्यतमो ऽथ वा ।

अल्पप्रयोगः सर्वत्र काकली चान्तरः स्वरः ॥६॥

(iii) The application of *kākali* and *antara*: 4-6

After singing¹ *ṣaḍja*, *kākali* followed² by *dhaivata* may be employed. Likewise after singing³ *madhyama*, *antara* and *ṣaḍja* may be used. Alternatively, having sung⁴ *ṣaḍja* and *kākali* one may return to *ṣaḍja* and after that move on to any succeeding⁵ note. Similarly, after employing *madhyama* and *antara*, *madhyama* should be taken before resorting to any succeeding note. Everywhere⁶ the notes *kākali* and *antara* are rarely used. (4-6)

1, 3 & 4 Literally, 'pronouncing' or 'articulating'.

2. *Krama* implies 'due order' which, in this case, is the descending one.

5. According to 'K' the succeeding note has to be the immediately succeeding one barring the one that has to be eliminated; but 'S' thinks that any succeeding note implies any one of *ri*, *ga*, *ma*, *pa* and *dha* in case of the overlapping of *kākali* and *pa*, *dha*, *ni*, *sa*, and *ri* in case of the overlapping of *antara* i. e., all the notes subsequent to *ṣaḍja* and *madhyama* respectively.

6. 'S' interprets it as *jāti-rāga*-s, etc.

(iv) षड्जमध्यमसाधारणम्

निषादो यदि षड्जस्य श्रुतिमाद्यां समाश्रयेत् ।
ऋषभस्त्वन्तिमां प्रोक्तं षड्जसाधारणं तदा ॥७॥
मध्यमस्यापि गपयोरेवं साधारणं मतम् ।
साधारणं मध्यमस्य मध्यमग्रामगं ध्रुवम् ॥८॥
साधारणं कंशिके ते केशाग्रवदणुत्वतः ।
ते एव कंश्रिदुच्येते ग्रामसाधारणे बुधः ॥९॥

(iv) The overlapping of *ṣaḍja* and *madhyama*: 7-9

If *niṣāda* takes resort to the first *śrutis* of *ṣaḍja* and *ṛṣabha* to its last, it is called the overlapping of *ṣaḍja*. Similarly, the overlapping of *madhyama* is conceived in-between *gāndhāra* and *pañcama*. The overlapping of *madhyama* is definitely restricted to *madhyama-grāma*. (7-8)

These two¹ overlappings, being subtle like the point of hair, are known as *kaiśika*² and are also called "the overlapping of *grāma-s*"³ by (some) scholars.⁴ (9)

The overlapping of *ṣaḍja* and *madhyama* is analogous to the modification of these two notes. The overlapping of *ṣaḍja* takes place when it yields its initial *śruti* to *niṣāda* and its final *śruti* to *ṛṣabha* retaining its 2nd-3rd *śruti-s* to itself. Similarly, the overlapping of *madhyama* takes place when *madhyama* yields its first *śruti* to *gāndhāra* and its fourth *śruti* to *pañcama*, retaining only two *śruti-s* to itself. However, as pointed out by 'K', the longest *śruti*-interval conceived in the *grāma-s* is that of four

1. That is, the overlapping of *ṣaḍja* and the overlapping of *madhyama*.
2. *Kaiśika* literally means hair-like, i. e. very fine pointed, very subtle. The word (*kaiśika*) is applied to *ṣaḍja sādharāṇa* and *madhyama-sādharāṇa*.
3. 'S' infers that since the overlapping of *madhyama* is limited to *madhyama-grāma*, the overlapping of *ṣaḍja* is also to be understood as applicable to *ṣaḍja-grāma* only. That is how he comes to justify the expression *grāma-sādharāṇa* i. e., the overlapping of *grāma-s*, as signifying the process to be indicative of *grāma-s*. However, this does not accord with the reason pointed out by 'K' for restricting the overlapping of *madhyama* to *madhyama-grāma* since *ṛṣabha* or *niṣāda* do not exceed the interval of four *śruti-s* in the overlapping of *ṣaḍja* if made applicable to *madhyama-grāma*.
4. This, however, does not seem to be the view of the author.

śruti-s and therefore a five-*śruti* interval is considered to be undesirable. So, if in the *ṣaḍja-grāma* the overlapping of *madhyama* is allowed, its *pañcama* will swell into a five-*śruti*-interval, which is undesirable. Therefore, the overlapping of *madhyama* is permitted only in *madhyama-grāma* in which *pañcama* has three *śruti-s* only.

(v) जातिसाधारणम्

एकग्रामोद्भवास्वेकांशामु जातिषु यद्भवेत् ।
समानं गानमार्यास्तज्जातिसाधारणं जगुः ॥१०॥
जातिसाधारणं केचिद्भागानेव प्रचक्षते ।

(v) Overlapping of *jāti-s*: 10-11b

Among the *jāti-s* of the same *grāma* having the same tone as the fundamental note, the identical melodic presentation that obtains between them is called the overlapping of *jāti-s* by the noble ones.¹ The overlapping of *jāti-s* is identified by some with *rāga-s*². (10-11b)

Jāti-sādharāṇa is very briefly dealt with by *Śarṅgadeva* as well as by *Bharata*. 'K' thinks that it is based on *varṇa-sūmya*, the identity in the patterns of tonal movement. 'S' cites *śuddha-kaiśika-madhyama* as one of the instances of *jāti-sādharāṇa*. Some details regarding the practice of *jāti-sādharāṇa* will be found in Section VII of this chapter.

1. The earlier authors such as *Bharata*, *Mataṅga* and others are meant.
2. 'S' cites *rāga śuddha-kaiśika-madhyama* as an illustration.

अथ षष्ठं वर्णालङ्कारप्रकरणम्

(i) वर्णालक्षणं, तद्भेदाश्च

गानक्रियोच्यते वर्णः स चतुर्धा निरूपितः ।
 स्थाय्यारोह्यवरोही च संचारीत्यथ लक्षणम् ॥१॥
 स्थित्वा स्थित्वा प्रयोगः स्यादेकस्यैव स्वरस्य यः ।
 स्थायी वर्णः स विज्ञेयः पशवन्वर्थनामकौ ॥२॥
 एतत्संमिश्रणाद्वर्णः संचारी परिकीर्तितः ।

Section 6

VARṆĀLAṅKĀRA :

Tone-patterns and Embellishments

(i) The definition and classification of tone-patterns (Varṇa):
 1-3b

Varṇa (tone-pattern) is the act of singing¹ which is demonstrated to be fourfold, viz. *sthāyi*² (steady), *ārohi*³

In Section 4 the author has dealt with the permutations and combinations of tones, but in actual practice all of them are not actually employed in singing. Now, therefore, the author analyses the actual singing in the tonal patterns and melodic phrases as employed in the process of singing the musical compositions. Since in the composite concept of *saṅgīta* (instrumental music and dance, i. e. *vādya* and *nṛtya* essentially followed the vocal i. e. *gāna*, the terminology of the entire musical theory is centered around vocal music; that is why, *varṇa*, i. e. tonal pattern is defined in the context of singing, though it is equally applicable to the instrumental music, or dance music and so on.

1. *Gāna-kriyā* rendered as the "act of singing" indicates the process of singing or the action of voice-production in the process of singing.
2. *Sthāyi* literally means unvarying, e. g. 'sa sa sa' or 'ri ri ri' and so on.
3. *Ārohi* is ascending in pitch, e. g. 'sa ri ga ma pa dha ni' and so on.

(ascending), *avarohi*⁴ (descending) and *sañcāri*⁵ (circulatory). These are defined as follows. (1)

When the same tone is put to a halting⁶ use it is known as the steady (tone) pattern. The two subsequent⁷ patterns

Varṇa literally means colour, taste or a syllable. In the context of music the word is metaphorically used in the sense that the particular manner and order in which the tones are employed contributes to their musical value, and also lends (colour or taste) to the composition. In short, the value of tone-pattern is comparable to the colour-pattern of the visual arts. But more than that *varṇa* in the sense of 'a syllable' is applicable in musical parlance; for, as the syllables go to form a meaningful word and then a group of words goes to form a sentence which is the significant unit of language, so also tones organised into a particular fashion go to form melodic phrases, that are the units of a melodic composition. The concept of *varṇa* is as old as Bharata, since he too has spoken of these four types of tonal patterns (*varṇa-s*), (cf. N. S. Kaśī ed. 29. 24).

The classification of tone-patterns, as pointed out by 'K' is based on the predominant element viz. if in the process of singing it is the steady pattern that is predominant, then the tonal pattern will be called the 'steady'. In other words, the four types of tonal patterns are not used exclusively.

Steadiness in the steady pattern is obtained by harping on the same tone for sometime. The nature of ascending and descending patterns is well described by their names. The *sañcāri* (i. e. the circulatory pattern) is defined by Mataṅga (as quoted by 'K') as under :

यत्र ताने सञ्चरन्ति स्वरा अन्धान्त्यसंहिताः ।
 एकैकशो द्विशो वा स सञ्चारी वर्ण उच्यते ॥

4. *Avarohi* is descending in pitch, e. g. 'ni dha pa ma ga ri sa' and so on.
5. *Sañcāri* literally means moving around not having any fixed order. This is an admixture of the above three types and is illustrated in the order of such phrases as 'sa ri sa ri ga sa ni dha sa ri ga' and 'sa sa sa ni ma ma ni ma pa ni ri ri pa' etc.
6. Halting on a tone by repetition as 'sa sa sa'.
7. Subsequent to the steady (*sthāyi*) pattern as mentioned in the previous verse i. e. the ascending (*ārohi*) and descending (*avarohi*) patterns.

are signified by their names.⁸ The admixture of these (three) is known to be the circulatory⁹ pattern. (2-3b)

“When the tones move about in a note-series one by one or two at a time, or are delineated together joining the respective final notes (with the initial notes of the successive units), it is called *sañcārī varṇa* (circulatory pattern). As in *Mālavakāśīka* : sã sã sa ni ma ma ni ma pa ni ri ri pã pa ni pã ni pã ni dha etc.” Bṛhaddeśī (p. 33) however reads as under :

यत्र गीते सञ्चरन्ति स्वराः परस्परमन्तसंहिता ।
एकैकशो वा, स सञ्चारी वर्ण उच्यते ॥

Sañcārī varṇa (circulatory pattern) is said to be the one in which the tones move about, mutually joining the final notes or one by one. As in *Mālavakāśīka* : ‘sã sã sa ni pa ni pa ni pa ni sã dha ri pã pa ni ni ni’.

The two versions of the definitions of *sañcārī* (circulatory pattern), the one ascribed to Mātanga by ‘K’ and the other quoted from Bṛhaddeśī are identical to a large extent and yet they are different in their net bearing.

(ii) अलङ्कारलक्षणं, तद्भेदानिरूपणं च

(क) अलङ्कारलक्षणम्

विशिष्टं वर्णसन्दर्भमलङ्कारं प्रचक्षते ॥३॥

(ii) The definition and classification of tonal embellishment.

(a) The definition of tonal embellishment (*alāṅkāra*): 3c-64b

In keeping with the suggested sense of the term *alāṅkāra* (ornament), the original concept under this name was quite comprehensive to include almost all types of tonal embellishments; for example even *kampa* (tremor) was included in *alāṅkāra-s*. However, subsequently the signification of the word *alāṅkāra* was restricted to “a melodic phrase-progression”. The importance of ornamentation in Indian melody is well brought out by Bharata in the following verse :

8. That is, these two patterns are so named that their names are descriptive of their nature and function, as it is quite obvious.

9. *Sañcārī varṇa*.

*Alāṅkāra*¹ (tonal embellishment) is said to be a specific arrangement² of tone-patterns. (3cd)

शशिना रहितेव निशा विजलेव नदी सता विपुष्पेव ।
अविभूषितेव च स्त्री गीतिरलङ्कारहीना स्यात् ॥

(N. S., G. O. S. Vol. IV 29. 45)

“Melody without ornamentation would be like a night without the moon, a river devoid of water, a creeper shorn of flowers and a lady without ornaments.”

He is, however, careful also to caution against the excessive and improper use of embellishments as he says :

एभिरलङ्कारैर्व्या गीतिवर्णाविरोधेन ।
स्थाने चालङ्कारं कुर्यात् खुरसि काञ्चिकां वध्मेत् ॥

(N. S., G. O. S. vol. IV p. 131)

“Melody should be embellished by these (ornamentations) without disrupting the tone-pattern (*varṇa*), for ornaments are to be put on properly so that the girdle is not tied to the breast.”

Thus even though a high premium is put on the employment of tonal embellishments, yet a certain propriety is essentially to be observed. That is why Ahobala defines tonal embellishment as “the delineation of the tone-patterns in a particular order” (क्रमेण स्वरसन्दर्भमलङ्कारं प्रचक्षते, (S. Pa 221).

Further, it may be observed that the tonal embellishments (*alāṅkāra-s*) have been classified on the basis of the predominant tone-pattern (*varṇa*), as Bharata has said that their formation depends on the tone-patterns of four types (cf. N.S. 29.24). *Alāṅkāra* is said to be a combination of several melodic movements. Elucidating the definition of Śārṅgdeva ‘K’ amplifies his statement to the effect that ‘the particular manner of delineating the said (four types of) tone patterns in a melodic rendering is called tonal embellishment (*alāṅkāra*)’.

The specificity of delineating the tone-patterns consists in the use of the prescribed *kalā* (i.e. phrase of an *alāṅkāra*) and so on (वैशिष्ट्यं च नियतकलादियुक्तत्वम्)

1. *Alāṅkāra* literally means an ornament, a decorative, an aid to beauty, a device of beautification.

2. ‘S’ interprets *varṇa-sandarbhām* of the text as *varṇasamudāyam*, i.e. a group of tone-patterns.

(ख) स्थायिवर्णगतालंकारोद्देशः

तस्य भेदास्तु बहवस्तत्र स्थायिगतान्बुधे ।
 येषामाद्यन्तयोरेकः स्वरस्ते स्थायिवर्णगाः ॥४॥
 प्रसन्नादिः प्रसन्नान्तः प्रसन्नाद्यन्तसंज्ञकः ।
 ततः प्रसन्नमध्यः स्यात्पञ्चमः क्रमरेचितः ॥५॥
 प्रस्तारो ऽथ प्रसादः स्यात्सप्तैते स्थायिनि स्थिताः ।

(b) The definition and enumeration of the embellishments of the steady tone-pattern : 4-6b

Many, indeed, are its¹ varieties, of which I shall presently speak of those pertaining to the steady tone-pattern (*sthāyi-varṇa*). Those (tonal-embellishments) that have the same tone in the beginning as well as in the end, pertain to the steady tone-pattern. The seven (embellishments) classified as belonging to the 'steady' (tone-pattern) are *prasannādi*², *prasannānta*³, *prasannādhyanta*⁴, *prasannamadhya*⁵, *kramarecita*⁶, *prastāra*⁷ and *prasāda*⁸. (4-6b)

Śārṅgadeva, our author, defines and illustrates sixtythree tonal embellishments (*alāṅkāra-s*) but Bharata has given only thirty-three which include many other things apart from *alāṅkāra-s* as they came to be understood in Śārṅgadeva's time. It may be admitted that theoretically there are infinite possibilities of tonal embellishments, but it seems only 63 were in vogue in his time. It is notable that Dattila, who is thought by some to be earlier than Bharata gives only 13 embellishments and some writers subsequent to Śārṅgadeva (cf. Ahobala's S. Pā) enumerate even more than 63. The distinguishing characteristic feature of the tonal pattern, as pointed out in the text and interpreted by 'K' is that its different kalā-s (integral parts or phrases) commence and end with the same tone, though the repetition occurs in different registers (cf. 'K' on verses 3-8).

1. The pronoun 'it' stands for 'alāṅkāra' of the previous verse.
2. Lit. with *prasanna* (i. e. *mandra*) in the beginning.
3. Lit. with *prasanna* in the end.
4. Lit. with *prasanna* in the beginning and in the end.
5. Lit. with *prasanna* in the centre.
6. Lit. devoid of order.
7. Lit. extension.
8. Lit. clarity. All these are explained in the following few verses.

(ग) मन्द्रतारलक्षणम्

मन्द्रः प्रकरणे ऽत्र स्यान्मूर्च्छनाप्रथमः स्वरः ॥६॥
 स एव द्विगुणस्तारः पूर्वः पूर्वो ऽथ वा भवेत् ।
 मन्द्रः परस्ततस्तारः प्रसन्नो मृदुरित्यपि ॥७॥
 मन्द्रस्तारस्तु दीप्तः स्यान्मन्द्रो बिन्दुशिरा भवेत् ।
 ऊर्ध्वरेखाशिरस्तारो लिपौ त्रिवचनात्प्लुतः ॥८॥

(c) The significance of the terms *mandra*, *tāra*, etc. : 6c-8

In this section the word '*mandra*' signifies the first tone of the *mūrccanā*, and that very tone when doubled¹ (in pitch) is (called) '*tāra*'; or alternatively the tone in the preceding register becomes '*mandra*' and the one in the succeeding register (becomes) '*tāra*'. *Mandra* is also called *prasanna* or

Three terms viz. *mandra*, *tāra* and *pluta* are defined here. *Mandra* and *tāra* are presented as relative concepts, as indeed they are ; and two alternative expressions have been offered to indicate their relation. Firstly, it is posited that *mandra* is the name given to the first note of the *mūrccanā*, while the eighth note, which is double the first one (in pitch range), is called *tāra*. If the first tone of the *mūrccanā* belongs to the lower register and is called *mandra*, the same tone of the middle register would be called *tāra*, but if the first note (*mandra*) of the *mūrccanā* is in the middle register, then the same note of the high register would become *tāra*.

It is pertinent to note that the terms *tāra* and *mandra* in this Section must not be understood as defined in verse 7 of Section 3 ante, they do not refer to the three registers as such. Obviously the middle register finds no mention in this context and therefore the terms *mandra* and *tāra* refer to what may be called the lower and the higher register, the two covering the concept of three registers in their relative application. This would be clear from the other alternative view put forth by the author.

Alternatively, he says, the tone of the prior register may be understood as *mandra* (low) and that of the posterior register may be considered *tāra* (high), the prior register being the one in which the commencing note of the phrase-progression (*alāṅkāra*) falls. Consequently,

1. *Dviguṇa* is the eighth tone (i. e. the first of the next higher octave).

mṛdu, and *tāra* is also called '*dīpta*'. In notation, *mandra* is indicated by an overhead dot, *tāra* by an overhead vertical dash and '*pluta*'² by the figure 3 (following the tone)³. (6c-8)

as 'S' elucidates, if the prior tone is in the lower register (in the scheme of three registers) it is called *mandra* and its *tāra* will be in the middle register, but if the prior tone is (*mandra*) in the middle register, the subsequent tone (*tāra*) will be in the high register. 'S' further distinguishes this view from the first one by pointing out that, "accordingly the prior tone, in this view need not be the commencing note of the *mūrccanā*" (cf. S. on 3-8, p. 154).

The terms *mandra* and *tāra* in their relative sense may be rendered as 'lower' and 'higher' in the technical and the specific sense in this section.

It is interesting to observe that Bharata hardly seems to speak of the three registers (*saptaka-s*) in terms of *mandra*, *madhya* and *tāra*. He no doubt speaks of the three *sthāna-s* as the places of voice production in the context of the excellences of verbal expression (*pāṭhya-guṇa-s*) and *kaku* (intonation), e. g.

त्रीणि स्थानानि—उरः कण्ठः शिरः इति...

उरःशिरःकण्ठात् स्वरः काकुः प्रवर्तते ॥

(N. S., G. O. S., IV. 17.106)

But the details of context in which the sound is to be produced respectively from the chest, the head and the throat show that these places of sound-production are not necessarily related in terms of pitch relations contained in the concept of registers, though pitch is naturally involved in *kaku* (cf. N. S., G. O. S. IV, 17. 107-108).

Again the terms *dīpta* and *mandra* are defined by Bharata in the context of the embellishments of *pāṭhya* :

उच्चो दीप्तश्च मन्द्रश्च नीचो द्रुतविलम्बितौ ।

पाठ्यस्यैते ह्यलंकारा लक्षणं च निबोधत ॥

(N. S., G. O. S., IV 17.113)

Ucca is defined as *śiraḥ-sthānagata* (located in the head), *dīpta* is defined as *śiraḥsthānagatatāratarata* (that which is located in the head and is higher),

2. The term *pluta* is taken from the terminology of Sanskrit grammar. Vowels are considered to be of three degrees, viz., *hrasva* (short = 1 mātrā), *dirgha* (long = 2 mātrā-s) and *pluta* (prolonged = 3 mātrā-s). 'S' interprets '*pluta*' in this context as 'thrice'.

3. Literally, the expression '*trivacanāth*' would be rendered as 'on account of being pronounced thrice', and 'S' interprets it as स त्रिरुच्चारणीय इत्यर्थः, i. e. "*Pluta* is that which is to be pronounced (or produced) thrice."

mandra is *urah-sthānagata* (located in the chest) and *nīca* is *urah-sthānastha-mandratāra* (located in the chest but lower).

Thus, he has high and higher (viz. *ucca* and *dīpta*) on the one hand and low and lower (*mandra* and *nīca*) on the other; but he has no mean point, the middle (*madhya*). Consequently the terms *dīpta* and *prasanna* are equated with *tāra* and *mandra* only in the relative order and not in the perspective of the three registers.

Abhinavagupta also defines *dīpanam* as *tārata* and *prasāda* as *mandratā* and thereby relates *dīpti* to be the acoustic phenomena involving the listener and the singer (cf. Abh. Bh. N. S., G. O. S. IV, p. 88).

Besides, the general atmosphere created by Bharata's expression with regard to pitch-relation suggests that the terminology had not as yet crystallised in his time and the two extremes of high and low pitch were recognised as a relative phenomenon without any reference to the concept of three registers though the three registers were known to Bharata. This may be compared with N. S. (G. O. S. IV 29.39) which speaks of *tāra*, *mandra* and *tāratarata* as produced respectively from the throat, the chest and the head. This indicates that though the three registers were recognised, the terms in which this recognition found expression were conditioned by the tradition which supplied words only for the opposites.

(घ) स्थायित्रणगतालंकार-निरूपणम्

1. प्रसन्नादिः

मन्द्रद्वयात्परे तारे प्रसन्नादिरुदोरितः ।

सं सं सं । (१)

(d) The embellishments of the steady tone-pattern : 9-13

(1) *Prasannādi*

If two lower (*mandra*) tones are followed by one higher (*tāra*) tone, it is known as *prasannādi*¹, e. g. "sa sa sa" (9ab)

The author now defines and illustrates the sixtythree embellishments. The illustrations are given just by way of specimen and are based on *uttaramandrā*, the first *mūrccanā* of the *śaṭja-grāma*.

Bharata defines *Prasannādi* as :

क्रमशो दीपितो यः स्यात् प्रसन्नादिः स कथ्यते ।

(N. S., G. O. S. IV 29.33)

1. Literally, having *prasanna* (*mandra* or lower) in the beginning.
2. It has not been possible give *tara-mandra* signs in the English version.

and Dattila defines it as :

प्रसन्नं पूर्वमुच्चार्य शनैः संदीपयेत् स्वरम् । प्रसन्नादिर्भवेदेवम् ।

Dattilam, 100

MB (Sārṅgadeva has, at the very outset, taken the two terms *dipta* and *tara* as synonyms; but Ghosh and Nijenhuis render the word *dipta* literally as 'brilliant'. *Dipta* is not only bright but also stimulated, or brightened when applied to tone (*svāra*). Accordingly, the two definitions can be rendered as under.

GLASSARDO (i) That which is gradually heightened is called *prasannādi*.

(ii) Having sung *prasanna* (*mandra* or low) in the first instance if it is gradually heightened, it would be *prasannādi*.

Dattila's definition of *prasannādi* also makes it clear that Sārṅgadeva's interpretation of the term *prasanna* as *mandra* (low) is in keeping with tradition. Nijenhuis renders it literally as 'clear', which seems to be technically inadequate as it has no explicit reference to pitch value. However, it is noteworthy that the above two definitions are indicative of the fact that Bharata and Dattila did not use the words *prasanna* and *dipta* as totally dissociated from their general connotation, though the technical implication of their expression is precisely brought out by Sārṅgadeva. Mātāṅga was the first to equate *prasanna* with *mandra* as he says "मन्द्रशब्देन प्रसन्नध्वनिश्च्यते i. e. the word *mandra* signifies the pitch (called) *prasanna* (lit. clear)."

It is notable in the above context that Mātāṅga illustrates *prasannādi* as *sa ri ga ma pa dha ni*, which presents his interpretation of Bharata's *kramasāḥ* but does not correspond exactly with that of Sārṅgadeva whose pattern is followed by Kumbhā (S. Raj II. 1.3.29). This indicates a process of crystallisation.

2. प्रसन्नान्तः

तद्वेलोम्ये प्रसन्नान्तः,

सं सं सं । (२)

(2) *Prasannānta*

Its² reverse is *prasannānta*³, e. g. 'sa sa sa' (9c).

2. The reverse of *prasannādi*,

3. Literally, having the lower at the end.

3. प्रसन्नाद्यन्ता

,प्रसन्नद्वयमध्यगे ॥९॥

दीप्ते प्रसन्नाद्यन्तः स्यात्,

सं सं सं । (३)

4. प्रसन्नमध्यः

,तारयोर्मध्यगे पुनः ।

मन्त्रे प्रसन्नमध्याख्यमलङ्कारं विदो विदुः ॥१०॥

सं सं सं । (४)

5. क्रमरेचितः

भाद्यन्तयोर्मूर्च्छनाऽऽदिश्चेत्स्वरो ऽन्तद्वितीयकः ।

संका कला ऽथ चेन्मध्ये स्तस्तृतीयचतुर्थकौ ॥११॥

(3) *Prasannādyanta*

If the higher tone is placed in-between two lower tones, it becomes *prasannādyanta*⁴, e. g. 'sa sa sa' (9d-10a).

(4) *Prasannamadhya*

If, however, the lower is placed in-between the two higher tones, that embellishment is known to the experts as *prasannamadhya*⁵, e. g. 'sa sa sa' (10b-d).

(5) *kramarecita*

The embellishment (called) *kramarecita*, is described in three phrases⁶ as follows : the first tone of the *mūrccanā*, in the first phrase, is placed in the beginning as well as at the

If the arrangement of tones in the different phrases of *kramarecita* is observed, it will be found that there is a progressive increase in the number of tones in-between the final 'sa'. This makes the prefix *krama*

4. Literally, having the lower in the beginning and at the end.

5. Literally, having the lower in the middle.

6. Kala means an integral part or a phrase.

सा द्वितीया पञ्चमाद्यास्त्रयो जन्तश्चेत्कला परा ।
एवं कलात्रयेणोक्तो जलङ्कारः क्रमरेचितः ॥१२॥

संरिसं संगमसं संपधनिसं । (५)

6. प्रस्तारः

दोप्तान्तश्चेत्प्रतिकलं प्रस्तारः सो ऽभिधीयते ।

संरिसं संगमसं संपधनिसं । (६)

7. प्रसादः

तारमन्द्रविपर्यासात्तं प्रसादं प्रचक्षते ॥१३॥

संरिसं संगमसं संपधनिसं । (७)

end with the second (tone) in-between⁷; the third and the fourth (tones) are placed in-between in the second phrase; while in the third phrase the three tones commencing with *pañcama* are placed in-between⁸, e. g. 'sa ri sa, sa ga ma sa, sa pa dha ni sa' (11-12).

(6) Prastāra

If this⁹ ends in the higher (tone) in every phrase it is called *prastāra*, e. g. 'sa ri sa, sa ga ma sa, sa pa dha ni sa' (13ab).

(7) Prasāda

If the order of the lower and the higher is reversed in this¹⁰, then it is called *prasāda*, e. g. 'sa ri sa, sa ga ma sa, sa pa dha ni sa' (13cd).

to recite significant. This same is true of *prastāra* and *prasāda*. Thus, it would seem that the first four (i. e. 1 to 4) and the last three (i. e. 5 to 7) embellishments form two groups having a certain feature common to all the members. The first group of four is distinguished by the same note being in the beginning, in the middle and at the end, though with the difference in the placement of high and low registers.

7 & 8. In-between the first tones of the *mūrcchanā* placed at the beginning and the end of the phrase.

9. 'This' refers to *kramarecita*.

10. 'This' refers to *prastāra*.

(ङ) आरोहिवर्णगतालंकारोद्देशः

स्यातां विस्तीर्णनिष्कर्षौ बिन्दुरभ्युच्चयः परः ।

हसितप्रेङ्खिताक्षिप्तसन्धिप्रच्छादनास्तथा ॥१४॥

उद्गीतोद्वाहितौ तद्वत्त्रिवर्णो वेणिरित्यमी ।

द्वादशारोहिवर्णस्थालङ्काराः परिकीर्तिताः ॥१५॥

1. विस्तीर्णः

मूर्च्छनाऽऽदेः स्वराद्यत्र क्रमेणारोहणं भवेत् ।

स्थित्वा स्थित्वा स्वरदीर्घः स विस्तीर्णोऽभिधीयते ॥१६॥

सा रो गा मा पा धा नी । (१) 115 718 NA

2. निष्कर्षो, गात्रवर्णश्च

ह्रस्वैः स्वरैः स निष्कर्षो द्विद्विरुक्तैर्निरन्तरैः ।

सस रिरि गग मम पप धध निनि । (२)

(e) The embellishments of the ascendant tone-pattern : (14-25)

The (12) embellishments pertaining to the ascendant tone-pattern (*ārohi varṇa*) are known as *vistīrṇa*, *niṣkarṣa*, *bindu*, *abhyuccaya*, *hasita*, *preṅkhita*, *akṣipta*, *sandhipracchādana*, *udgīta*, *udvāhita*, *trivārṇa* and *veṇi*. 14-15

(1) Vistīrṇa

Where the ascent takes place from the first note of the *mūrcchanā* in successive order, by notes elongated through repeated staying¹, it is called *vistīrṇa*, e. g. 'sā ri gā mā pā dhā ni.' (16)

(2) Niṣkarṣa and gātravarṇam

If short notes are employed twice at a time without break it² become *niṣkarṣa*, e. g. 'sa-sa ri-ri ga-ga ma-ma pa-pa

1. The significance of the original expression *sthitvā sthitvā* (repeating *sthitvā*) is brought out by the word repeated, i. e. an elongated tone is analogous to a long vowel taking twice as much time as the short one. Accordingly, in notation the tones are written with long vowels. Thus after staying for twice as much time on a single tone one proceeds to the next higher tone.

2. It refers to the pattern of *vistīrṇa*.

त्रिश्चतुर्वा स्वरोच्चारं गात्रवर्णमिमं विदुः ॥१७॥

ससस रिरिरि गगग ममम धधध निनिनि ॥

सससस रिरिरिरि गगगग मममम पपपप धधधध निनिनिनि । (२)

निष्कर्षस्येव भेदौ द्वौ केचिदेतो बभाषिरे ।

3. बिन्दुः

प्लुतं ह्रस्वं प्लुतं ह्रस्वं प्लुतं ह्रस्वं प्लुतं स्वरम् ॥१८॥

कुर्वन्कमाद्यदा ऽऽरोहेत्तदा बिन्दुरयं मतः ।

स३रि ग३म प३ध नि३ । (३)

4. अभ्युच्चयः

एकान्तरस्वरारोहमाहुरभ्युच्चयं बुधाः ॥१९॥

सगपनि । (४)

dha-dha ni-ni'. If however, each note is pronounced thrice or four times, it³ is known as *gātravarṇam*, e. g. 'sa-sa-sa ri-ri-ri ga-ga-ga ma-ma-ma pa-pa-pa dha-dha-dha ni-ni-ni, sa-sa-sa sa ri-ri-ri-ri ga-ga-ga-ga ma-ma-ma-ma pa-pa-pa-pa dha-dha-dha ni-ni-ni-ni'. These two forms, according to some are said to be the two varieties of *niṣkarṣa*. (17-18)

(3) Bindu

If the ascending tones are employed in the order of prolonged (*pluta*), short (*hrasva*), prolonged, short, prolonged, short and prolonged, then, it is considered to be *bindu* e. g. 'sa3ri ga3ma pa3dha ni3.' (18c-19b)

(4) Abhyuccaya

An ascendant tonal movement dropping alternative tones is called *abhyuccaya* by the sages, e. g. 'sa ga pa ni'. (19cd)

3. It refers to the pattern of *niṣkarṣa*.

5. हसितः

यत्रेकोत्तरवृद्धाभिरावृत्तिभिरुदोरिताः ।

आरुह्यन्ते स्वराः प्राह हसितं तं शिवप्रियः ॥२०॥

स रिरि गगग मममम पपपप धधधधध निनिनिनिनिनि । (५)

6. प्रेङ्खितः

स्वरद्वयं समुच्चार्य पूर्वं पूर्वयुतं परम् ।

यदान्दोलितमारोहेत्प्रेङ्खितो ऽसौ क्रमो ऽथ वा ॥२१॥

सरि रिग गम मप पध धनि । (६)

7. आक्षिप्तः

एकान्तरं स्वरयुगं तादृक्पूर्वयुतं परम् ।

क्रमादारोहति यदा तदा ऽऽक्षिप्तं प्रचक्षते ॥२२॥

सग गप पनि । (७)

(5) Hasita

Wherein the tones ascend, augmented successively by an increased repetition⁴, it is called *hasita* by the devotee of Śiva⁵ e. g. 'sa ri-ri ga-ga-ga ma-ma-ma-ma pa-pa-pa-pa dha-dha dha-dha-dha-dha ni-ni-ni-ni-ni-ni-ni'. (20)

(6) Preṅkhita

Having sung first two tones to begin with, if one ascends with a swing by taking the succeeding tone as preceded by the previous tone⁶, it is called *preṅkhita* or *krama* e. g. 'sa-ri-ga ga-ma ma-pa pa-dha dha-ni'. (21)

(7) Ākṣipta

If one ascends in successive order by a pair of tones dropping one tone in-between⁷ and initiating the succeeding

4. That is, each successive tone will have one more repetition, as compared to the preceding one.

5. Śārngadeva is the devotee of Śiva.

6. That is, in order to take the third tone one should first take the 2nd and then the 3rd immediately followed by it.

7. That is, to form the first pair the second tone in-between the first and the third is dropped and in the second pair the fourth is dropped in-between the 3rd and the 5th.

8. सन्धिप्रच्छादनः

त्रिस्वरा ऽऽद्या कला ऽन्ये च पूर्वपूर्वान्तिमादिमे ।
कले स्तस्त्रिस्वरे यत्र सन्धिप्रच्छादनस्तु सः ॥२३॥
सरिग गमप पधनि । (८)

9. उद्गीतः

यदा ऽऽद्याद्यस्त्रिरावृत्तः कलयोस्त्रिस्वरात्मनोः ।
तदोद्गीतः,
सससरिग मममपध । (९)

10. उद्वाहितः

,मध्यमेन तादृशोद्वाहितो मतः ॥२४॥
सरिरिरिग मपपपध । (१०)

pair with the preceding one⁸, it is called ākṣipta, e. g. 'sa-ga-ga-pa pa-ni'. (22)

(8) Sandhipracchādana

Where the first phrase (*kala*) consists of three tones and the other two have the last tone of their preceding phrase as their first in a group of three tones, it is (called) *sandhipracchādana*, e. g. 'sa-ri-ga ga-ma-pa pa-dha-ni'. (23)

(9-12) Udgīta, udvāhita, trivarna and pṛthagveṇī

When in two phrases of three tones each, the first tone is repeated thrice, it is *udgīta*, e. g. 'sa-sa-sa-ri-ga ma-ma-ma-pa-dha' (9) and in that, if the middle tone is repeated similarly, it is considered to be *udvāhita*, e.g. 'sa-ri-ri-ri-ga ma-pa-pa-pa-dha' (10). If, however, the last (third) tone⁹ is repeated, it is described as *trivarna*, e.g. 'sa-ri-ga-ga-ga, ma-pa-dha-dha-dha' (10)

8. That is, for example in the second pair the succeeding tone after dropping the 4th tone is *pa* which is prefixed by the 3rd *ga*.

9. Of each phrase.

11. त्रिवर्णः

अन्त्यस्य तु त्रिरावृत्तौ त्रिवर्णं वर्णयन्त्यमुम् ।
सरिगगग मपधधध । (११)

12. पृथग्वेणिः

त्रयाणां तु त्रिरावृत्तौ पृथग्वेणिरुदोरितः ॥२५॥
ससस रिरिरि गगग, ममम पपप धधध । (१२)

(च) अवरोहिवर्णगतालंकाराः

अवरोहकमादेते द्वादशाप्यवरोहिणि ।

(छ) सञ्चारिवर्णगतालंकारोद्देशः

मन्द्रादिर्मन्द्रमध्यश्च मन्द्रान्तः स्यादतः परम् ॥२६॥
प्रस्तारश्च प्रसादोऽथ व्यावृत्तस्खलितावपि ।
परिवर्ताक्षेपबिन्दूद्वाहितोमिसमास्तथा ॥२७॥

If, however, the last (third) tone¹⁰ is repeated it is described as *trivarna*, e. g. sa-ri-ga-ga-ga, ma-pa-dha-dha-dha. (11) But, if all the three tones¹⁰ are repeated thrice (in the above pattern), it is called *pṛthagveṇī*,¹¹ e. g. 'sa-sa-sa ri-ri-ri ga-ga-ga ma-ma-pa-pa-pa dha-dha-dha' (12). (24-25)

(f) The embellishments of the descendant tone-pattern : 26ab

These very twelve in their descending order are known as descendant embellishments.¹² (26ab)

(g) The embellishments of the circulatory (sañcārī) tone-pattern : 26c-53

The twentyfive embellishments based on the circulatory tone-pattern (*sañcārī varṇa*) are named as follows : *mandrādi*, *mandramadhya* as followed by *mandrānta*; *prastāra*, *prasāda* and

10. Of each phrase.

11. Cf. verse 15 ante where it is called *veṇī*, and S. Raj. Vol. I 2.1.3. 58-59 and K. R. 103 who follow suit. However, it is notable that 'S' calls it *pṛthagveṇī*.

12. That is, the ascendant embellishments as described above when ordered in the descendant movement.

प्रेङ्गुनिष्कृजितश्येनक्रमोद्धृतिरञ्जिताः ।
 संनिवृत्तप्रवृत्तोऽथ वेणुश्च ललितस्वरः ॥२८॥
 हुङ्कारो ह्लादमानश्च ततः स्यादवलोकितः ।
 स्युः सञ्चारिण्यलङ्काराः पञ्चविंशतिरित्यमी ॥२९॥

1. मन्द्रादिः

त्रिस्वरा ऽद्या कलैकंमन्द्रत्यागेन चापराः ।
 त्रिस्वराश्चेत्कला मन्द्राद्या मन्द्रादिस्तदा भवेत् ॥३०॥

सगरि रिमग गपम मधप पनिध (१)

vyāvṛtta as well as *skhalita*; *parivarta*, *ākṣepa*, *bindu*, *udvāhita*, *ūmi* and *sama*; *preṅkha*, *niṣkṛjita*, *śyena*, *krama*, *udghaṭṭita* and *rañjita*; *sannivṛtta*, *pravṛtta* and *veṇu*; *lalitasvara*, *hukāra* and *hrādamāna* followed by *avalokita*. (22c-29)

1. Mandrādi

When the first phrase of three tones beginning with the lower¹ one is followed by other similar² phrases formed by dropping the lower tone one by one³, then it becomes

1. The word lower is used in the technical sense in this section as already explained (vide verse 6 cd—8 ante). 'S' puts the three tones in the order 1, 3, 2. i.e. *sa-ga-ri* and so on, but there is no indication of this order of notes in the text.
2. The text repeats the formation, viz. each phrase has to be of three tones and is to commence with the lower tone.
3. That is, in the 2nd phrase *sa* is dropped, in the 3rd phrase *ri* is dropped, in the 4th phrase *ga* is dropped and finally, *ma* is dropped. So as a rule the lower tone is progressive. It may be observed here that the definition of this tone-pattern does not explicitly seem to correspond with the given illustration. The definition only prescribes that the first tone of every phrase of three tones will be lower (*mandra*) but does not at the same time lay down the order of the other two tones which is left to be inferred. Since the first tone is specified to be low, the implication is that the following two tones are not to be placed in their natural order and the specification with regard to the first one would be redundant 'S' has brought out this implication clearly by elucidating that the first phrase consists of three tones in the order of first, third and second etc. obviously his interpretation is inspired by the given illustration. But Kumbha has defined this tone-pattern in very clear and explicit terms which leaves no room for ambiguity. He says

2. मन्द्रमध्यः

ताः कला मन्द्रमध्यान्ताः क्रमाच्चेदपरो तदा ।

मन्द्रमध्यो यथा—

गसरि मरिग पगम धमप निपध । (२)

3. मन्द्रान्तः

मन्द्रान्तो यथा—

रिगस गसरि मपग पधम धनिप । (३)

4. प्रस्तारः

त्याक्तान्तरं स्वरयुगं त्याक्तादारभ्यते पुनः ॥३१॥

युगं तादृक्समारोहेत्तथा प्रस्तार उच्यते ।

सग रिम गप मध पनि । (४)

*mandrādi*⁴, e.g. 'sa-ga-ri ri-ma-ga ga-pa-ma ma-dha-pa pa-ni-dha.' (30)

2, 3. Mandra-madhya and (mandrānta)

In these very phrases⁵ if the 'lower' (*mandra*) is placed in the midst⁶ or at the end⁷ (the initial phrase) being followed by others in due order, then it is called *mandra-madhya* or *mandrānta*, e.g. 'ga-sa-ri ma-ri-ga, pa-ga-ma dha-ma-pa ni-pa-dha' or 'ri-ga-sa ga-ma-ri ma-pa-ga pa-dha-ma dha-ni-pa, respectively. (31ab)

4. Prastāra

When a pair of tones is formed by dropping the tone in-between them and is followed by another pair similarly formed but initiated by the tone omitted (in the previous

"In *mandrādi* there are five phrases of three tones each beginning with *sa* etc., while the third (tone) in each is placed in the middle (S. Raj. II 1. 3. 69). Here the order of all the three tones is explicitly laid down. Of course his definition and illustration both correspond to S. R. in substance.

4. Lit. having the lower tone in the beginning.
5. In all the five phrases illustrated above.
6. That is, the middle tone of (1) is placed in the beginning.
7. The last (3rd) tone of (1) is placed as the 1st and the commencing tone.

5. प्रसादः

पूर्वः पूर्वः परस्योर्ध्वाधोवर्ती क्रियते स्वरः ॥३२॥
यदा तदा प्रसादं तमाह श्रीकरणेश्वरः ।
सरिस रिगरि गमग मपम पधप धनिध । (५)

6. व्यावृत्तः

चतुःस्वरा कला तत्राद्यात्तृतीयं द्वितीयकात् ॥३३॥
तुर्यं गत्वा ऽऽदिमं गच्छेदेवमेकैकहानतः ।
चतुःस्वराः परा यत्र स व्यावृत्तः स्मृतो बुधः ॥३४॥
सगरिमस रिमगपरि गपमधग मधपनिम । (६)

pair), and an ascent is made in this way, it is said to be *prastāra*, e. g. 'sa-ga ri-ma ga-pa ma-dha pa-ni'. (31c-32b)

5. *Prasāda*

When every⁸ preceding tone precedes as well as follows the next tone⁹, then it is *prasāda* as declared by Śrikaraṇeśvara¹⁰, e.g. 'sa-ri-sa ri-ga-ri ga-ma-ga ma-pa-ma pa-dha-pa dha-ni-dha'. (32c-33b)

6. *Vyāvṛtta*

Where a phrase consisting of four tones proceeding from the first to the third, and then from the second to the fourth tone returns to the first¹¹ and is similarly followed by other phrases of four tones dropping a tone¹², one by one¹³, it is considered by the sages to be *vyāvṛtta*, e.g. 'sa-ga-ri-ma-sa ri-ma-ga-pa-ri ga-pa-ma-dha-ga ma-dha-pa-ni-ma'. (33c-34)

8. The preceding tone of every phrase.
9. The implication is that every phrase will have three tones and the tone referred to as 'the next' will be the middle one.
10. Śarṅgadeva.
11. The tones are arranged in the order 1, 3, 2, 4, 1.
12. That is the second phrase will drop the first tone, the third will drop the second and the fourth will drop the third tone.
13. That is, omitting one tone progressively.

7. स्खलितः

कलां प्रयुज्य मन्द्रादेर्द्विरुक्तोर्ध्वस्वरान्विताम् ।
अवरुह्येत चेदेष स्खलिताख्यस्तदा भवेत् ॥३५॥
सगरिममरिगस रिमगपगमरि गपमधमपम
मधपनिनिपधम । (७)

8. परिवर्तकः

स्वरं द्वितीयमुज्जित्वा त्रिस्वरा ऽऽद्या कला यदि ।
त्यक्तादारभ्य तादृश्यो ऽन्यास्तदा परिवर्तकः ॥३६॥
सगम रिमप गपध मधनि । (८)

9. आक्षेपः

त्रिस्वराश्चेत्कलाः पूर्वपूर्वत्यागोर्ध्वसंक्रमः ।
तदा ऽऽक्षेपः
सरिग रिगम गमप मपध पधनि । (९)

7. *Skhalita*

Employing a phrase of *mandrādi*¹⁴ followed by the next tone¹⁵ as used twice, if one descends¹⁶, then it is called *skhalita*, e.g. 'sa-ga-ri-ma-ma-ri-ga-sa, ri-ma-ga-pa-pa-ga-ma-ri, ga-pa-ma-dha-dha-ma-pa-ga, ma-dha-pa-ni-ni-pa-dha-ma'. (35)

8. *Parivartaka*

If the first phrase consisting of three tones barring the second one is followed by similar¹⁷ phrases starting with the omitted¹⁸ tones, then it is *parivartaka*, e.g. sa-ga-ma ri-ma-pa ga-pa-dha ma-dha-ni (36)

9. *Ākṣepa*

If the phrases of three tones progress in the ascending order, dropping the first tone¹⁹ of the preceding phrase, then

14. That is, 'sa-ga-ri'.
15. That is, *ma* after the first phrase.
16. Descends to the starting tone of the phrase.
17. Similarly dropping the second tone as counted from their first tone.
18. That is, second from the first tone of the phrase.
19. This would naturally apply only to the subsequent phrases and not to the first one.

10. बिन्दुः

अथ बिन्दुः स यत्र प्लुतमधः स्वरम् ॥३७॥
कृत्वा ऽग्निवत्परं स्पृष्ट्वा ऽधः स्पर्शनाखिलाः कलाः ।
स३रिस रि३गरि ग३मग म३पम प३धप ध३निध । (१०)

11. उद्वाहितः

कलायां त्रीन्स्वरान्गीत्वा ऽवरुह्यकं पराः कलाः ॥३८॥
यत्रकंकोज्जिता गीतास्तद्वदुद्वाहितस्तु सः ।
सरिगरि रिगमग गमपम मपधप पधनिध । (११)

it is *ākṣepa*, e. g. 'sa-ri-ga ri-ga-ma ga-ma-pa ma-pa-dha pa-dha-ni'. (37a-c)

10. Bindu

The *bindu* is that, in all the phrases of which, the first²⁰ tone is a prolonged²¹ one (*pluta*), the second one is slightly touched like fire²² and the first one taken once again, e. g. 'sa³-ri-sa ri³-ga ri ga³-ma-ga ma³-pa-ma pa³-dha-pa dha³-ni-dha'. (37c-38b).

11. Udvāhita

Having sung three tones in a phrase and descended one²³, if the subsequent phrases formed similarly are sung dropping a tone one by one²⁴, that indeed is *udvāhita*, e. g. 'sa-riga-ri ri-ga-ma-ga ga-ma-pa-ma ma-pa-dha-pa pa-dha-ni-dha'. (38c-39b)

20. Though *adhah* literally means 'below', in the technical sense *adhah* and *parah* mean the preceding and the succeeding tones respectively.
21. That is, the tone is to be sung for thrice the time taken by a single tone.
22. As one removes the hand approaching fire as soon as it comes in contact with it, so slight is the touch.
23. This would constitute the fourth tone of that phrase.
24. Dropping the initial tone of the previous phrase.

12. ऊर्मिः

मूर्च्छनाऽऽदेः स्वरात्तुर्यं प्लुतीकृत्याद्यमेत्य च ॥३९॥
तुर्यगाने कलकंकहानाद्यत्रापरास्तथा ।
स ऊर्मिः स्यात्
सम३सम रिप३रिप गध३गध मनि३मनि । (१२)

13. समः

स तु समः कला यत्र चतुः स्वराः ॥४०॥
तुल्यारोहावरोहैकैकहानादपरास्तथा ।
सरिगममगारिस रिगमपमगरि गमपधधपमग
मपधनिनिधपम । (१३)

12. Ūrmi

Starting with the first tone of a *mūrccanā*, taking a prolonged (*pluta*) fourth and returning to the first if (one) sings the fourth (in a phrase) with the other phrases following (similarly) by the loss of one²⁵ tone successively, it would be *ūrmi*²⁶, e. g. 'sa-ma³-sa-ma ri pa³-ri-pa ga-dha³-ga-dha-ma-ni³ ma-ni'. (39b-40c)

3ma-ni

13. Sama

Where the (different) phrases are (composed) of four tones each and proceed by equal ascent and descent omitting one tone by and by²⁷, there indeed it is *sama*, e. g. 'sa-ri-ga-ma-ma-ga-ri-sa ri-ga-ma-pa pa-ma-ga-ri ga-ma-pa-dha-dha-pa-ma ga, ma-pa-dha-ni-ni-dha-pa-ma'. (40c-41b)

25. The lower and the initial tone of the previous phrase.
26. Literally a 'wave'.
27. The initial and the lower tone of the preceding phrase in successive phrasal order.

14. प्रेङ्खः

फला गतागतवती द्विस्वरकंकहानतः ॥४१॥
 यत्रान्यास्तादृशः स स्यात्प्रेङ्खः,
 सरिरिस रिगगरि गममग मपपम पधधप धनिनिध । (१४)

15. निष्कूजितः

, निष्कूजितः पुनः ।

प्रसादस्य कलां गीत्वा तत्कलाऽऽदेस्तृतीयकम् ॥४२॥
 गत्वा ऽऽद्यगानाद्भवति,
 सरिसगस रिगरिमरि गमगपग मपमधम वधपनिप । (१५)

16. श्येनः

, श्येनः संवादियुग्मकः ॥४३॥

क्रमात्सरिगमाद्यैः स्यात्,
 सप रिध गनि मस । (१६)

14. *Prekhā*

Where the phrases move forward and then backward²⁸ by two tones with the subsequent²⁹ phrases forming themselves similarly by dropping a tone by and by³⁰ successively, it becomes *prekhā*, e.g. 'sa-ri-ri-sa ri-ga-ga-ri ga-ma-ma-ga ma-pa-pa-ma pa-dha dha-pa dha-ni-ni-dha.' (41c-42b)

15. *Niṣkūjita*

Having sung a phrase of *prasāda*³¹, and proceeding to the third (tone) from the initial (tone), if the initial is sung, it becomes *niṣkūjita*, e.g. 'sa-ri-sa-ga-sa ri-ga-ri-ma-ri ga-ma-ga-pa-ga ma-pa-ma-dha-ma pa-dha-pa-ni-pa'. (42b-43a)

16. *Śyena*

Śyena is (formed) by the consonant³² pairs³³ beginning respectively with *sa*, *ri*, *ga* and *ma*, e.g. 'sa-pa ri-dha ga-ni ma-sa'. (43b-44a)³⁴

28. In the order of ascent and descent.
 29. The phrases following the first tone.
 30. Dropping the initial note of the preceding phrase.
 31. Phrases of *prasāda* may be seen vide verse No. 33 ante and embellishment No. 5 in this series.
 32. The consonance in this case consists in the interval of thirteen *śruti-s*, known as the *ṣaḍja-pañcama* relation.
 33. Pairs of tones.
 34. Verse 43 consists of one line only.

17. क्रमः

, कला द्वित्रिचतुःस्वराः ।

आद्यस्वराद्यास्तिलः स्युद्वितीयाद्यादयस्तथा ॥४४॥
 यत्रासौ क्रम इत्युक्तः,
 सरिसरिगसरिगम रिगरिगमरिगमप गमगमपगमपध
 मपमपधमपधनि । (१७)

18. उद्घट्टितः

, स तूद्घट्टित उच्यते ।

यत्र स्वरद्वयं गीत्वा पञ्चमाच्चतुरः स्वरान् ॥४५॥
 अवरोहेत्कला गायेत्तथैकैकोज्जनात्पराः ।
 सरिपमगरि रिगधमग गमनिधपम । (१८)

17. *Krama*

(The embellishment) in which there are three phrases consisting of two, three and four tones respectively commencing with the initial³⁵ tone and three (similar) phrases commencing with the second tone and so on³⁶, is called *krama*, e.g. 'sa-ri-sa-ri-ga-sa-ri-ga-ma, ri-ga-ri-ga-ma-ri-ga-ma-pa, ga-ma-ga, ma-pa-ga-ma-pa-dha, ma-pa-ma-pa-dha-ma-pa-dha-ni.' (41b-45a)

18. *Udghaṭṭita*

Where (in a phrase) after singing two tones,³⁷ one descends four tones from the fifth³⁸ and sings the subsequent phrase (similarly) by dropping one³⁹ tone in each case, it is said to be *udghaṭṭita*, e.g. 'sa-ri-pa-ma-ga-ri, ri-ga-dha-pa-ma-ga-ga-ma-ni-dha-pa-ma'. (44b-46b)

35. The first tone of the *mūrchanā*.
 36. Added to these two will be the three phrases commencing with the third tone and the three phrases commencing with the fourth tone.
 37. Beginning with the first tone of the *mūrchanā*,
 38. Fifth as counted from the initial tone of a phrase.
 39. The initial tone of the preceding phrase.

19. रञ्जितः

द्विहक्ता यदि मन्द्रान्ता मन्द्रादेः स्युः कलास्तदा ॥४६॥

रञ्जितः,

सगरिसगरिस रिमगरिमगरि गपमगपमग मधपमधपम
पनिधपनिधप । (१३)

20. सन्निवृत्तकप्रवृत्तकः

, अथ भवेदेष सन्निवृत्तकप्रवृत्तकः ।

यत्राद्यपञ्चमौ गीत्वा तुर्थात्त्रोन्नवरोहति ॥४७॥

क्रमात्कला सा यत्रान्यास्तद्वेककहानतः ।
सपमगरि रिधपमग गनिधपम । (२०)

19. *Rañjita*

If the phrases are such that *mandrādi*⁴⁰ is sung twice followed by the 'lower'⁴¹ in the end, then it is *rañjita*, e. g. 'sa-ga-ri-sa-ga-ri-sa, ri-ma-ga-ri-ma-ga-ri, ga-pa-ma-ga-pa-ma-ga, ma-dha-pa-ma-dha-pa-ma, pa-ni-dha-pa-ni-dha-pa'. (46c-47a)

20. *Sannivṛtṭapravṛtṭaka*

Where, having sung the first⁴² and the fifth⁴³ (tones) one descends by three consecutive tones from the fourth⁴⁴ (tone) in the first phrase, and where other phrases are similarly framed by dropping one tone⁴⁵ in each, it becomes *sannivṛtṭapravṛtṭaka*, e. g. 'sa-pa-ma-ga-ri, ri-dha-pa-ma-ga, ga-ni-dha-pa-ma.' (47a-48b)

40. This embellishment is based on the tonal embellishment called *mandrādi* illustrated vide verse 22 ante, and numbered as 6.

41. The lower tone i. e. the initial of the phrase in this case.

42. The first of the *mūrchanā*.

43. Ascending from first to the fifth tone.

44. The three tones to be counted from the fourth one; for the descent, as it is, is from the fifth.

45. The initial tone of the preceding phrase.

2.0 वेणुः

यत्राद्यः स्याद् द्विद्वितीयचतुर्थकतृतीयकाः ॥४८॥

सकृत्कला ऽन्याश्चैकैकहानाद्वेणुरसौ मतः ।

ससरिमग रिरिगपम गममधप ममपनिध । (२१)

22. ललितस्वरः

गीत्वा ऽऽद्यौ द्वौ चतुर्थं च यस्यां ताववरोहति ॥४९॥

सा कला ऽन्याश्च तादृश्यो यत्रासौ ललितस्वरः ।

सरिमरिस रिगपगरि गममधम मपनिधम । (२२)

23. हुङ्कारः

आदिमेन कला यत्र द्विस्वरा ऽऽद्या गतागतैः ॥५०॥

21. *Veṇu*

Where the (first) phrase is (formed) with the first tone⁴⁶ (sung) twice and then the second, fourth and the third once, and is followed by other similar phrases dropping one tone in each case, it is considered to be *veṇu*, e. g. 'sa-sa-ri-na-ga, ri-ri-ga-pa-ma, ga-ga-ma-dha pa, ma-ma-pa-ni dha'. (48c-49b)

22. *Lalitasvara*

Having sung the first two tones⁴⁷ followed by the fourth, if one descends by those very (two) tones⁴⁸ in a phrase, with the other similar⁴⁹ phrases following, it is *lalitasvara*, e. g. 'sa-ri-ma-ri-sa, ri-ga-pa-ga-ri, ga-ma-dha-ma-ga, ma-pa-ni-pa-ma'. (49c-50b).

23. *Huṅkāra*

Where the first phrase is of two tones followed by the initial (tone) arranged in the forward and backward order⁵⁰,

46. The first tone of the preceding phrase.

47. The first two of the *mūrchanā*.

48. That is, the first two of the phrase.

49. The rule that the other phrases would drop the first tone of the preceding phrase, though not stated, is implied in the illustration.

50. Forward movement is ascending and backward movement is descending, *sa* to *ri* in the first phrase is an ascent and *ri* to *sa* is the descent.

स्वरंरेकोत्तरं वृद्धः स हुङ्कारो निगद्यते ।
सरिस सरिगरिस सरिगमगरिस सरिगमपमगरिस
सरिगमपधमगरिस सरिगमपधनिधमगरिस (२३)

24. ह्रादमानः

ह्रादमाने प्रसन्नान्ता मन्द्रादेस्तु कला मताः ॥५१॥
सगरिस रिमगरि गपमग मधमप पनिधप ॥२४॥

25. अवलोकितः

पदा ऽऽरोहे ऽवरोहे च स्वद्वितीयं परित्यजेत् ।
चतुःस्वरा समाला तदा स्यादवलोकितः ॥५२॥
सगमगरिस रिमपपगरि गपधमग मधनिधम ॥२५॥

and the subsequent phrases are (formed, by the progressive addition of one tone⁵¹, it is called *huṅkāra*, e. g. 'sa-ri-sa sa-ri-ga-ri-sa, sa-ri-ga-ma-ga-ri-sa, sa-ri-ga-ma-pa-ma-ga-ri-sa, sa-ri-ga-ma-pa-dha-pa-ma-ga-ri-sa, sa-ri-ga-ma-pa-dha-ni-dha pa-ma-ga-ri-sa.' (50c-51b)

24. *Hrādamāna*

In *hrādamāna* the phrases of *Mandrādi* are ended with an added 'lower'⁵² (*prasanna*), e. g. 'sa-ga-ri-sa, ri-ma-ga-ri, ga-pa-ma-ga, ma-dha-pa-ma, pa-ni-dha-pa.' (51cd)

25. *Avalokita*

When the four-tone phrase of *sama*⁵³ drops⁵⁴ its second tone⁵⁶ in the ascent as well as in the descent, then it becomes

51. One tone to be added to the preceding phrase before the descent begins, so that the first phrase, extending upto two tones (excluding the descending tone), the second upto three, the third upto four, the fourth upto five, the fifth upto six and the sixth upto seven tones, is followed by a descent upto the initial tone in each case.
52. Lower tone, i. e. the first tone in the first phrase, second in the second phrase and so on.
53. *Sama* is the name of an embellishment defined and illustrated vide verse 40c-41b ante, under No. 13 of this series. The first phrase of *sama* for example is 'sa-ri-ga-ma-ma-ga-ri-sa.'
54. A figurative expression, the action is taken by the singer in fact.
55. The second tone of each phrase respectively in the ascent and in the descent.

एवं सञ्चार्यलङ्कारा आरोहेण प्रदर्शिताः ।
एतानेवावरोहेण प्राह श्रीकरणाग्रणीः ॥५३॥

(भ) सप्तान्धलंकारोद्देशः

अन्ये ऽपि सप्तलंकारा गीतज्ञैरुपदर्शिताः ।
तारमन्द्रप्रसन्नश्च मन्द्रतारप्रसन्नकः ॥५४॥
आवर्तकः सम्प्रदानो विधूतो ऽप्युपलोककः ।
उल्लासितश्चेति तेषामधुना लक्ष्म कथ्यते ॥५५॥

avalokita, e. g. 'sa-ga-ma-ma-ri-sa, ri-ma-pa-pa-ga-ri, ga-pa-dha-dha-ma-ga, ma-dha-ni-ni-pa-ma'. (52)

Thus, the circulatory embellishments (*sañcārī-āṅkāra-s*) have been demonstrated in their ascending order. These very embellishments are conceived in the descending order as well by Śārṅgadeva.⁵⁶ (53)

(h) Seven other embellishments :

Other seven embellishments have also been indicated¹ by the master musicians, viz. *tāramandra-prasanna*, *mandratāra-prasanna*², *āvartaka*, *sampradāna*, *vidhūta*, *upalola*³ and *ullāsita*. They are now being defined. (54-55)

Their phrases subsequent to the first⁴, such as second and so on, are formed by the progressive loss of one tone⁵. (56 ab)

56. *Śrīkarnāgrāṇi* in the text.

1. Or demonstrated.
- 2 & 3. The suffix 'ka' in the text seems to have been provided for completing the metre as it has been dropped in the illustration.
4. In the case of these seven embellishments the form of the first phrase only will be defined, while the rule for the subsequent phrases has been stated in general.
5. The initial tone of the preceding phrase.

1. तारमन्द्रप्रसन्नः

कलास्तेषां द्वितीयाद्याः पूर्वकंकप्रहाणतः ।
अष्टमस्वरपर्यन्तमारुह्याद्यं व्रजेद्यदि ॥५६॥

तारमन्द्रप्रसन्नो ज्यमलङ्कारस्तदोच्यते ।
सरिगमपधनिसंसं ॥१॥

2. मन्द्रतारप्रसन्नः

मन्द्रादष्टममुत्प्लुत्य सप्तकस्यावरोहणे ॥५७॥
मन्द्रतारप्रशान्नास्थमाह माहेश्वरोत्तमः ।

संसंनिधपमगरिसं ॥२॥

3. आवर्तकः

आद्यं द्वितीयमाद्यं च द्विद्विर्गोत्वा द्वितीयकम् ॥५८॥

1. *Tāramandra-prasanna*

Having ascended upto the eighth tone, if one descends to the initial (tone), such an embellishment is called *tāramandra-prasanna*⁶, e. g. 'sa⁸-ri-ga-ma-pa-dha-ni-sa-sa'. (56c-57b)

2. *Mandratāra-prasanna*

Having jumped from the 'lower' (*mandra*) to the eighth (tone), if seven tones are (sung) in the descending order, it is said to be *mandratāra-prasanna* by Śārṅgadeva⁷, e. g. 'sa⁸-sa-ni-dha-pa-ma-ga-ri-sa'. (57c-58b)

3. *Āvartaka*

Where, in a phrase, one sings the initial (first), the second and the initial tone twice, each followed by the

6. Since both the terms, *mandra* and *prasanna* are used in this name, the interpretation offered by Nijenhuis, 'clear in its high and low notes' may be accepted in this context. *Prasanna* has been rendered literally as clear however the notation may be understood as defined by the author in the very beginning, the words *mandra* and *tāra* being only relative.

7. Literally, the best among the devotees of Śiva.

सकृदाद्यं यत्कलायां गायेदावर्तकस्तु सः ।
ससरिरिससरिस सरिगगरिरिगगि गगममगगमग
ममपपममपप पपधधपपधध धधनिनिधधनिध ॥३॥

4. सम्प्रदानः

एतस्यैव कला जन्तौ द्वौ स्वरौ संत्यज्य गीयते ॥५९॥
यदा तदा सम्प्रदानमलंकारं विदुर्दुधाः ।
ससरिरिससरिरिगगरिरिगगममगग ममपपमम पपधधपप
धधनिनिधध ॥४॥

5. विधूतः

युग्ममेकान्तरितयोस्त्यक्तादप्येवमेव चेत् ॥६०॥
द्विद्विः प्रयुज्येत तदा विधूतो बुधसंमतः ।
सगसग रिमरिम गपगप मधमध पनिपनि ॥५॥

second and the initial (tone) once, it is *āvartaka*⁸, e. g. 'sa-sa-ri-ri-sa-sa-ri-sa, ri-ri-ga-ga-ri-ri-ga-ri, ga-ga-ma-ma-ga-ga-ma-ga, ma-ma-pa-pa-ma-ma-pa-ma pa-pa-dha-dha-pa-pa-dha-pa, dha dha-ni-ni-dha-dha-ni-dha'. (58c-59b)

4. *Sampradāna*

When this⁹ very phrase is sung by dropping the last two tones, then to the experts, the embellishment is known to be *sampradāna*, e. g. 'sa-sa-ri-ri-sa-sa, ri-ri-ga-ga-ri-ri, ga-ga-ma-ma-ga-ga ma-ma-pa-pa-ma-ma, pa-pa-dha-dha-pa-pa, dha-dha-ni-ni-dha-dha.' (59c-60b)

5. *Vidhūta* (FR PURANA P. 83)

When a pair of two tones, taken alternatively¹⁰, is employed twice and is followed by similar pairs of tones commencing with the omitted¹¹ tone, then it is considered

8. Literally, a whirlpool.

9. The phrase of *āvartaka*, e. g. 'sa-sa-ri-ri-sa-sa-ri-sa.'
10 & 11. In the order of 1-3, 2-4, 3-5, 4-6, 5-7.

6. उपलोलः

कलायामाद्ययोर्युग्मं चेतृतीयद्वितीययोः ॥६१॥
 द्विद्विः प्रयुज्यते तज्जैरुपलोलस्तदोच्यते ।
 सरिसरिगरिगरि रिगरिगमगमग गमगमपमपम
 मपमपधपधप पधपधनिधनिध । ॥६॥

7. उल्लासितः

द्विर्गोत्वा ऽऽद्यं तृतीयं च प्रथमं च तृतीयकम् ॥६२॥
 सकृद्गायेद्यत्कलायां तमुल्लासितमूचिरे ।
 ससगसग रिरिमरिम गगपगप ममधमध पपनिपनि । ॥७॥
 इति प्रसिद्धालङ्कारास्त्रिषष्टिरुदिता मया ॥६३॥
 अनन्तत्वात्तु ते शास्त्रे न सामस्त्येन कीर्तिताः ।

by the sages to be *vidhāta*, e. g. 'sa-ga-sa-ga, ri-ma-ri-ma, ga-pa-ga-pa ma-dha-ma-dha, pa-ni-pa-ni.' (60c-61b)

6. *Upalola*

If in a phrase, a pair of the initial tone is employed twice followed by a pair of the third and the second tones (sung) twice, it is said to be *upalola* by the experts, e. g. 'sa-ri-sa-ri-ga-ri-ga-ri, ri-ga-ri-ga-ma-ga-ma-ga, ga-ma-ga-ma-pa-ma-pa-ma, ma-pa-ma-pa-dha-pa-dha-pa, pa-dha-pa-dha-ni-dha-niha.' (61c-62b)

7. *Ullāsita*

Having sung the initial (tone) twice, if the third, the first and the third tone is employed once in succession, it is called *ullāsita*, e. g. 'sa-sa-ga-sa-ga, ri-ri-ma-ri-ma, ga-ga-pa-ga-pa, ma-ma-dha-ma-dha, pa-pa-ni-pa-ni.' (62c-63b)

Thus, sixtythree well known¹² embellishments have been described by me. Since they are infinite in number, they have not been exhaustively dealt with in this treatise. (63c-64b)

12. *Prasiddha* has been rendered as well known.

(iii) अलंकाराणां प्रयोजनम्

रक्तिलाभः स्वरज्ञानं वर्णाङ्गानां विचित्रता ॥६४॥

इति प्रयोजनान्याहुरलङ्कारनिरूपणे ।

॥ इति प्रथमे स्वरगताध्याये षष्ठं वर्णालङ्कारप्रकरणम् ॥६॥

(iii) The object of tonal embellishments : 64c-65b

Creation of delightfulness, tonal perception¹ and the variety of tonal structure (*varṇāṅga*) is the object² of demonstrating the embellishments.³ (64c-65b)

1. *svāra-jñāna* literally means knowledge of tones.

2. *Prayojana* is purpose, the the end in view.

3. The author is explaining the relevance of this topic of embellishments being included in the scheme of this work.

अथ सप्तमं जातिप्रकरणम्

क. उपक्रमः

(i) शुद्धा जातयः

(क) सप्तशुद्धजातीनामुद्देशः

शुद्धाः स्युर्जातयः सप्त ताः षड्जादिस्वराभिधाः ।
षाड्ज्यार्षभी च गान्धारी मध्यमा पञ्चमी तथा ॥१॥

धेवती चाथ नेषादी,

Section 7

Jāti-s (Melodic types)

A. Introductory : 1-28

(i) *Śuddhā* (primary) *jāti-s* : (1-3b)

(a) The seven *śuddhā jāti-s*—There are seven *śuddhā*¹ (primary) *jāti-s*² (melodic types) named after the notes *śaḍja* etc.,³ viz. *śaḍjī*, *aṛṣabhī*, *gāndhārī*, *madhyamā*, *pañcamī*, *dhaivatī* and *naiṣāḍī*. (1-2a)

Now, as per the synopsis of the work, the author is going to deal with the tonal structures used for actual singing. It seems that when Bharata, whose tradition Śārṅgadeva generally follows, set out to systematise the music of his times, he comprehended the prevalent melodies into eighteen basic melodic types which he called *jāti-s*. The word '*jāti*' literally means a class, genus or an ethnic group implying an attribute or a characteristic commonly shared by the constituent members that also exhibit other individual features which distinguish them from each other.

The word *jāti* as applied in the context of music has been defined semantically in various ways by Mātāṅga (as quoted by 'S') to begin

1. Literally, pure or unmodified.
2. *Jāti* in its general connotation signifies 'genus, class or type'.
3. The seven notes are meant.

(ख) शुद्धतालक्षणम्

, शुद्धतालक्ष्म कथ्यते ।

यासां नामस्वरो न्यासो ऽपन्यासो ऽंशो ग्रहस्तथा ॥२॥

तारन्यासविहीनास्ताः पूर्णाः शुद्धाभिधा मताः ।

(b) The definition of *śuddhātā* : To define *śuddhātā*⁴, it is stated that the *jāti-s*, which have their denominative⁵ note as the final note⁶ (*nyāsa*), the semi-final note⁷ (*apanyāsa*), the fundamental note⁸ (*aṁśa*) and the initial note⁹ (*graha*), which do not have the final note in the high register and which are complete¹⁰ are known as *śuddhā jāti-s*. (2b-3b)

with. *Jāti-s* are so called because they come into being by the collection of such factors as the *śruti-s*, *svara-s* and *grāma-s*, or they arise from the initial note etc., or alternatively, that which gives rise to or induces (in the listener) the enjoyment of a particular sentiment (i. e. *rāsa* or aesthetic delight) is called *jāti*. Alternatively, *jāti-s* are so called because they are the cause of the entire phenomenon of *rāga* and so forth; or otherwise, *jāti-s* denote the various classes (i. e. castes) of human beings such as *brāhmaṇa* and so forth.

Kallinātha conjectures a few more derivations of the term *jāti*. *Jāti-s* are so called because they are duly constituted out of the proper combination of the two *grāma-s*; or, because they suggest a class name such as the cow among the animals. The cowness is manifest in many individual cows in a slightly modified form; and so is *jāti* inherent in the *rāga-s* and their mixed and derived forms. *Jāti*, thus, comprehends in its connotation certain characteristic features that are essentially

4. *Śuddhātā* is derived as an abstract noun from *śuddha* (pure) and is here used to refer to the purity of the *śuddhā jāti-s*.
5. *Nāmasvara*, i. e. the denominative note is the one by which the *jāti* is named.
6. *Nyāsa* or the final note is the one that forms the concluding note of a melody.
7. *Apanyāsa* or the semifinal note is the concluding note of a section (*vidārī*) of a melody. Accordingly, there can be more than one semifinal note in a melody.
8. *Aṁśa* or the fundamental note is the most prominent note and functions as the dominant as well as the tonic.
9. *Graha* or the initial note is that with which the song is commenced.
10. That is, having all the seven notes.

common to a certain class or type of melodic structures called *grāmā-rāga-s* and such other derived or associated forms. *Jāti-s* may therefore be understood as melodic types on the basis of which were developed the other later melodic structures.

Jāti-s as melodic types are recognised to be eighteen, out of which seven are called *śuddhā* and eleven are known as *saṁsarga-ja vikṛtā*. The *jāti-s* that are named after the seven *śuddhā svāra-s* (standard notes) and have one of these notes as their final note (*nyāsa*) after which they are named, apart from a few other factors to be described shortly, are considered to be *śuddhā* (pure) in the sense of being the primary and original types from which the rest were thought to have been derived by modification, and were on this account called *vikṛtā* (modified). (1-2a)

It may be observed that three important considerations determine the *śuddhata* of *jāti-s* (i. e. purity, originality or in other words, the r being primary or otherwise), viz.

- (i) that the note which determines their name (such as *śadjī*, *nr̥ṣabhi*, *gāndhārī* etc., being named after *śalja*, *ṛṣabha*, *gāndhāra* etc. respectively) should function as their final, semi-final, fundamental and the initial note.
- (ii) that they have their final note in the low or the middle heptad (*saptaka*), and
- (iii) that they are complete, i. e. employing all the seven notes.

Kallinātha points out that since the use of the final note in the high register is specifically prohibited it is to be inferred that it is ordained in the low and the middle register despite the fact that Bharata has explicitly laid down that the rule that the final note in the *śuddhā jāti-s* should be in the low register. He argues that if Bharata's rule is taken literally, the use of the middle *śalja* in case of *śalji* ordained by Mātanga would be contradictory in practice. That is why, he seems to suggest, Śāringa-deva has prescribed a negative rule. (2b-3b)

(ii) विकृता जातयः

विकृता न्यासवर्जितलक्ष्महीना भवन्त्यनुः ॥३॥

सम्पूर्णत्वग्रहांशापन्यासेष्वेकवर्जनात् ।

भवन्ति भेदाश्चत्वारो द्वयोस्त्यागे तु षड्भेदाः ॥४॥

त्यागे त्रयाणां चत्वार एकस्त्यक्तं चतुष्टये ।

भेदाः पञ्चदशवेत्ते षड्भेदाः सद्भिर्निरूपिताः ॥५॥

तत्राष्टौ पूर्णताहीनाः सप्त त्वितरवर्जिताः ।

द्विधा स्युः पूर्णताहीनाः षड्भेदाः ॥६॥

अतो षट्वाधिका आर्षभ्यादिष्वौडुवजातिषु ।

अतस्त्रयोविंशतिधा षट्सु प्रत्येकमोरिताः ॥७॥

(ii) *Vikṛtā* (modified) *jāti-s* : (3c-7)

These (*śuddhā jāti-s*) when devoid of their (above) characteristics¹, excepting the rule for the final note, become modified (*vikṛtā*).² (3cd)

By the omission of completeness, the initial note, the fundamental note and the semi-final note, one by one, four varieties³ are obtained⁴; and by dropping two (of them), they⁵ are considered to be six. (4)

These very primary *jāti-s* that have been characterised as having their denominative note for the final, the semi-final, the fundamental and the initial note, having all the seven notes and having their final note in the low or the middle register, become modified (*vikṛtā jāti-s*) when they are deprived of these characteristics with the provision that they retain their limitations with regard to the final note.

This is interpreted by the two commentators in two different ways. 'K' seems to restrict the application of the exception with regard to the final note, to the rule pertaining to the denominative note being the final note. He is silent with respect to its employment in the middle or the low register only. However, 'S' applies the exception to the latter and not the former in which case he is silent. The two versions are presented here in their own words as under :

Kallinātha states that, of the five characteristics of the *śuddhata* of *jāti-s* (viz. that the denominative note is their final, semi-final, fundamental and initial note and their completeness) leaving aside the specification with regard to the final note the modified *jāti-s* are relieved

1. The characteristics of *śuddhata* as already described.
2. Now, by what principle they are modified, is to be inferred from the description of the different varieties of modified forms of the *śuddhā-jāti-s* that follows.
3. Of modified *jāti-s*
4. Lit. become.
5. That is, the varieties obtained.

By the omission of three⁶, four (varieties) and by omitting four (of them) only one⁷ is (obtained). These fifteen⁸ are the only varieties of *śādji* demonstrated by the noble ones. (5)

Of these⁹, eight are devoid of completeness and seven are deprived of the other (factors)¹⁰. Those devoid of completeness are twofold being distinguished as hexatonic (*ṣaḍava*) and pentatonic (*auḍva*). (6)

Thus there would be eight (varieties) more in the pentatonic *jāti-s* such as *āṣabhī* and others; and therefore, these six¹¹ are known to have twenty-three varieties each. (7)

of the other (four) limitations. He explains this interpretation by saying that accordingly, in case of the modified *jāti-s* the denominative note will be the final note while other notes will be employed as semi-final, fundamental and initial notes. Thus in this way the *śuddhā jāti-s* become the modified *jāti-s* and not the associate modified (*sāmsargaja-vikṛtā*) *jāti-s*. This arrangement, he says, helps to assign the particular modified *jāti-s* to the corresponding *śuddhā jāti-s* since their final note serves as the distinguishing mark.

'S' states that these *śuddhā jāti-s* deprived of the said characteristic marks excepting the final note are modified. The absence of the characteristic mark with regard to the final note implies (the non-applicability of) the rule pertaining to the final note being in the registers other than the higher one, for (he asserts) that is not necessary in the case of modified forms, and he quotes Mātāṅga in support of his view who says, "In the *śuddhā jāti-s* the final denominative note is in the lower register, but in the modifications this rule does not apply." Accordingly, he conceives two forms of the primary *jāti-s*, viz. characterised by *śuddhatva* (purity) and modification. However, he points out that *śuddhatva* cannot be predicated of *jāti-s* such as *śādja-kaiṣiki*, obviously referring to the associate modified ones.

6. Three factors.

7. Variety.

8. $4+6+4+1=15$.

9. Fifteen varieties.

10. Such as the initial note, the fundamental note and the semi-final note.

11. That is, the six modified forms of the *śuddhā jāti-s* excluding *śādji*

It is not only interesting but also instructive to consult Bharata who seems to be the author of the concept of *jāti-s* and their classification. He distinguishes *jāti-s* primarily into two classes, viz. those that are named after their denominative note which he calls *svāra-jāti-s* and which can only be seven; and those eleven that are formed by the combination of these *svāra-jāti-s* in their modified forms, which he calls *sāmsargaja vikṛtā* (combinations of modified *jāti-s*).

Furthermore, he informs that the *svāra-jāti-s* are twofold, viz. *śuddhā* (pure) and *vikṛtā* (modified). *Śuddhā* he defines as *śārūgadeva* does (in substance) and *vikṛtā*, he says, are formed when the *śuddhā jāti-s* are defiled with regard to one, two or more of their characteristics excepting the final note. The rule for the final note being in the lower register, he further adds, does not apply to them (cf. N. S., G. O. S. Vol. IV p. 37).

Thus Bharata explicitly states how the modification of *jāti-s* is effected. Since *śārūgadeva* is not quite explicit in this regard, even though his description of the modified forms implies the underlying principle of modification, the ambiguity of his text, which is obviously due to the brevity of his expression, can lead one to the interpretation that the modified *jāti-s* are formed by depriving the *śuddhā jāti-s* of all their characteristics excepting that of the final note. Indeed the expression *etal-lakṣma-hinā* (devoid of the characteristics of *śuddhata*) has been interpreted as such by the commentators. But in any case it is helpful to bear in mind that though only one form of modification of each of the seven *śuddhā-jāti-s* will correspond to this interpretation which is included among the various modifications detailed by the author subsequently, such seven modified forms have theoretically, if not practically, to be conceived because of the fact that the *sāmsargaja-vikṛtā* (associate modified) *jāti-s* are formed out of these.

Thus, we have *svāra-jāti-s* classified as *śuddhā* and *vikṛtā*. The *vikṛtā* are modified variously and manifest in two ways, viz. as the varieties of *śuddhā* by the application of the above rule and by the combination of such modified varieties, the former being called 'modified (*vikṛtā*) *jāti-s*' and the latter 'associate modified *jāti-s*' (*sāmsargaja-vikṛtā*). The *vikṛtā-s* are considered to be the variations of *śuddhā* and are not therefore counted independently. (3 cd)

Now, the author describes the technique of forming different varieties of the modified forms of *śuddhā jāti-s* such as *śādji* and others. It is obvious from this description that in all these cases the denominative note is understood to be the final note. We are thus left with four variable factors by dropping which different varieties are obtained. If,

for example, one of these four is ignored (in turn), we get four varieties, viz. (i) lacking in respect of completeness, and in not having the denominative note (ii) as the initial note, (iii) as the fundamental note, and (iv) as the semifinal note. However, by the omission of one or more of these factors, as pointed out by Kallinātha, what is intended is not the absence of these but the violation of *suddhata*. The specific characteristics of *suddha jāti-s* involved here are the employment of the denominative note as the initial, the fundamental and the semifinal note and completeness; what is implied by omission is not that the varieties of the modified *jāti-s* can be formed without employing the factors such as completeness, and so on, but that there will be loss of completeness, i.e. less number of notes (five or six) will be employed and notes other than the denominative ones will be employed as the initial, the fundamental and the semifinal notes; for otherwise *jāti-s* cannot be formed at all. Thus the term omission or its equivalents have a technical meaning.

Similarly, by dropping two factors six varieties are obtained, e.g. (i) by dropping completeness and the initial note

- (ii) by " " and the fundamental note
 (iii) by " " and the semifinal note
 (iv) by " the initial and the " "
 (v) by " the fundamental and the " "
 (vi) by " " " initial note

Similarly, by ignoring the observance of the definitive rule with regard to three factors, four other varieties are obtained, e. g. by dropping:

- (i) completeness, the initial and the fundamental notes
 (ii) " " and the semifinal notes
 (iii) " the fundamental and semi-final notes
 (iv) the initial, the fundamental and the semifinal notes.

However, if all the four factors are omitted there will only be one variety which will probably be the same as the modified form defined in verse 3 ante. (4-5)

In the case of *śaḍjī*, fifteen varieties were obtained. Analysing the process of their formation it is observed that eight of them were formed due to the non-observance of the condition of completeness (*sampūrṇatva* or *pūrṇatva*). While seven other varieties were obtained by omitting the other factors, viz. the initial note, the fundamental note and the semifinal note in the order already demonstrated. Now, the author adds that the other factors being in their order, loss of completeness is effected in two ways, viz. by the omission of one or of two notes

and thereby creating hexatonic or pentatonic *jāti-s*. This process leads to the formation of eight more pentatonic varieties bringing the total to twentythree ($8+8+7=23$). Since *śaḍjī* is a hexatonic *jāti* it has only fifteen varieties, but all others beginning from *arṣabhī* are hexatonic as well as pentatonic and thus have twentythree varieties each. Thus we have ($15+23\times 6=153$) one hundred and fiftythree varieties of modified *jāti-s* in all. These are classified in the following table which has been adopted with some modifications from *Praṇava Bhārati*, p. 245. (6-7)

Modification of *suddha jāti-s*

| No. | Name of the <i>suddha jāti</i> | Total No. of modified forms | Manner of modification | |
|-----------|--------------------------------|-----------------------------|------------------------|--|
| | | | Loss of completeness | Violation of the rule for the initial, fundamental and the semifinal notes |
| 1 | 2 | 3 | 4 | 5 |
| 1. | <i>Śaḍjī</i> | 15 | 8 | 7 |
| 2. | <i>Ārṣabhī</i> | 23 | 16 | 7 |
| 3. | <i>Gāndhārī</i> | 23 | 16 | 7 |
| 4. | <i>Mādhyamā</i> | 23 | 16 | 7 |
| 5. | <i>Pañcamī</i> | 23 | 16 | 7 |
| 6. | <i>Dhāivātī</i> | 23 | 16 | 7 |
| 7. | <i>Naiṣāḍī</i> | 23 | 16 | 7 |
| Total No. | | 153 | 104 | 49 |

(Chart 28)

(iii) संसर्गजा विकृता जातयः

विकृतानां तु संसर्गजाता एकादश स्मृताः ।
 स्यात्षड्जकंशिकी षड्जोदीच्यवा षड्जमध्यमा ॥८॥
 गान्धारोदीच्यवा रक्तगान्धारी कंशिकी तथा ।
 मध्यमोदीच्यवा कार्मारवी गान्धारपञ्चमी ॥९॥
 तथा ऽऽध्रो नन्दयन्तीति,

तद्धेतूनघुना ब्रुवे ।

षाड्जीगान्धारिकायोगाज्जायते षड्जकंशिकी ॥१०॥
 षाड्जिकामध्यमाभ्यां तु जायते षड्जमध्यमा ।
 गान्धारीपञ्चमीभ्यां तु जाता गान्धारपञ्चमी ॥११॥

गान्धार्यर्षभिकाभ्यां तु जातिरान्ध्रो प्रजायते ।
 षड्जो गान्धारिका तद्वद्वैवती मिलितास्त्विमाः ॥१२॥
 षड्जोदीच्यवतीं जातिं कुर्युः, कार्मारवीं पुनः ।
 उत्पादयन्ति नैषादीपञ्चम्यर्षभिका युताः ॥१३॥
 नन्दयन्तीं तु गान्धारीपञ्चम्यर्षभिका युताः ।
 गान्धारी धैवती षड्जो मध्यमेति युतास्त्विमाः ॥१४॥
 गान्धारीदीच्यवां कुर्युर्मध्यमोदीच्यवां पुनः ।
 एता एव विना षड्ज्या पञ्चम्या सह कुवते ॥१५॥
 कुर्युस्ता रक्तगान्धारो नैषादी च न धैवती ।
 अर्षभो धैवतीं त्यक्त्वा पञ्चम्यः कंशिकी भवेत् ॥१६॥

(iii) *Sāmsargajā-vikṛtā* (associate modified) *jāti-s* : (8-16)

The formations arising out of the association of the modifications are accepted¹ to be eleven. (8ab)

They are *ṣaḍja-kaiṣikī*, *ṣaḍjodicyavā*, *ṣaḍja-madhyamā*, *gāndhārōdicyavā*, *raktagāndhārī*, *kaiṣikī*, *madhyamodicyavā*, *kārmāravī*, *gāndhāra-pañcamī*, *āndhrī* and *nandayantī*. Now I shall describe their origins². (8c-10b)

Ṣaḍja-kaiṣikī is formed³ by the combination of *ṣāḍjī* and *gāndhārī*, *ṣaḍjamadhyamā* arises from *ṣāḍjī* and *madhyamā*, *gāndhārapañcamī* is brought forth by *gāndhārī* and *pañcamī*, *āndhrī* is born from *gāndhārī* and *ārṣabhī*; *ṣāḍjī*, *gāndhārī* and *dhaivatī* jointly cause *ṣaḍjodicyavā jāti*; again *naiṣāḍī*, *pañcamī* and *ārṣa-*

From the combination of the modifications of the *śuddha jāti-s*, i. e., by the association of their modified forms come into being eleven (and not more) formations called associate modified (*sāmsargajā vikṛtā*)

1. Literally, "as known from the tradition" (as known to collective memory).
2. Lit. 'causes'.
3. Lit. 'is born'.

bhī together produce *kāramāravī*, while *nandayantī* is the combination of *gāndhārī*, *pañcamī* and *ārṣabhī*; *gāndhārī*, *dhaivatī*, *ṣāḍjī* and *madhyamā* all these associated together create *gāndhārodicyavā*; these⁴ very (*jāti-s*) with *pañcamī* in the place of *ṣāḍjī* give rise to *madhyamodicyavā*, and these⁵ with *naiṣāḍī* in the place of *dhaivatī* create *rakta-gāndhārī*. *Kaiṣikī* is formed by five⁶, i. e. leaving aside *ārṣabhī* and *dhaivatī*. (10c-16)

jāti-s. The text, since it is not explicitly worded, is open to a slightly different interpretation which would read : "Eleven (forms) are known to be produced by the association (i. e. combination) of the modified *jāti-s*'s. And by "modified *jāti-s*" are implied, according to this interpretation, the varieties of the modified forms of the *śuddha jāti-s*. (8ab)

(iv) जातीनां ग्रामविभागः

चतस्रः षड्जशब्दिन्यो नैषादी धैवती तथा ।

अर्षभो चेति सप्तताः षड्जग्रामस्य जातयः ॥१७॥

शेषाः स्युर्मध्यमग्रामे,

(iv) The *grāma*-wise distribution of *jāti-s* : (17-18a)

The four¹ having the word *ṣaḍja* (in their name), as also *naiṣāḍī*, *dhaivatī* and *ārṣabhī*—these seven *jāti-s* pertain to the *ṣaḍja-grāma* and the rest of them² belong to the *madhyama-grāma*. (17-18a)

Now, the author is here relating the *grāma*-wise distribution of the eighteen *jāti-s* which is portrayed in the following chart along with the details of their combination :

4. i. e., *gāndhārī*, *dhaivatī*, *madhyamā* and *pañcamī*.
5. i. e., *gāndhārī*, *naiṣāḍī*, *madhyamā* and *pañcamī*.
6. i. e., *ṣāḍjī*, *gāndhārī*, *madhyamā*, *pañcamī* and *naiṣāḍī*.
1. Out of eighteen, seven belong to the *ṣaḍjagrāma*.
2. The remaining eleven.

Grāma-wise distribution and combination of jāti-s

| S. No. | Name of jāti | Grāma | Combination, if any |
|--------|-----------------|----------|--|
| 1. | Ṣādji | Ṣalja | Śuddha |
| 2. | Ṣādja-kaiṣiki | " | Ṣādji and gāndhāri |
| 3. | Ṣādjadīcyavā | " | Ṣādji, gāndhāri and dhāivati |
| 4. | Ṣādja-madhyamā | " | Ṣādji and madhyamā |
| 5. | Ārṣabhi | " | Śuddha |
| 6. | Dhāivati | " | " |
| 7. | Naiṣādi | " | " |
| 8. | Gāndhāri | Madhyama | " |
| 9. | Madhyamā | " | " |
| 10. | Pañcamī | " | " |
| 11. | Gāndhārodīcyavā | " | Gāndhāri, dhāivati, ṣādji and madhyamā |
| 12. | Raktagāndhāri | " | Gāndhāri, naiṣādi, pañcamī and madhyamā |
| 13. | Kaiṣiki | " | Ṣādji, gāndhāri, madhyamā, pañcamī and naiṣādi |
| 14. | Madhyamodīcyavā | " | Gāndhāri, dhāivati, pañcamī and madhyamā |
| 15. | Kārmāraṇi | " | Naiṣādi, Pañcamī and ārṣabhi |
| 16. | Gāndhārapañcamī | " | Gāndhāri and pañcamī |
| 17. | Āndhri | " | Gāndhāri and ārṣabhi |
| 18. | Nandayanti | " | Gāndhāri, pañcamī and ārṣabhi |

(Chart 29)

(v) सम्पूर्ण-षाडवौडुव-जातयः

, पूर्णत्वाद्यधुनोच्यते ।

कामारव्यथ गान्धारवञ्चमो षड्जकेशिकी ॥१८॥

मध्यमोदीच्यवेत्येता नित्यपूर्णाः प्रकीर्तिताः ।

षाड्जी च नन्दयन्त्यान्ध्री गान्धारोदीच्यवेत्यमूः ॥१९॥

सम्पूर्णषाडवाः प्राह चतस्रः काश्यपो मुनिः ।

नशावशिष्टाः सम्पूर्णषाडवौडविता मताः ॥२०॥

(v) Complete, hexatonic and pentatonic jāti-s : (18b-20)

Now, completeness and other (characteristics) are related as under :

Kārmāraṇi, *gāndhāra-pañcamī*, *ṣādjakaiṣiki* and *madhyamodīcyavā* are considered to be always¹ complete. The four viz. *ṣādji*, *nandayanti*, *āndhri* and *gāndhārodīcyavā* are declared by Kāśyapa to be complete as well as² hexatonic. The remaining ten are accepted to be complete, hexatonic and also³ pentatonic. (18b-20)

Here the author relates the different jāti-s with regard to their being complete or otherwise. The four jāti-s described as always complete obviously do not admit of such other forms caused by the omission of one or two notes, but those that do admit such forms are also available as complete. For instance *ṣādji*, *nandayanti*, *āndhri* and *gāndhārodīcyavā* are considered to be complete as well as hexatonic. So, while singing when they are employed as hexatonic, the notes omitted in each, as pointed out by 'K', respectively are *ni*, *sa*, *sa* and *ri*. So also with respect to the remaining ten, the notes to be omitted are indicated in the following table :

Completeness and otherwise of jāti-s

| S.No. | Name of the jāti | Nature | Notes to be omitted | |
|-------|-------------------------|------------------------------------|---------------------|-----------------|
| | | | Hexatonic form | Pentatonic form |
| 1 | 2 | 3 | 4 | 5 |
| 1. | <i>Kārmāraṇi</i> | Always complete | ... | ... |
| 2. | <i>Gāndhāra-pañcamī</i> | " | ... | ... |
| 3. | <i>Ṣādja-kaiṣiki</i> | " | ... | ... |
| 4. | <i>Madhyamodīcyavā</i> | " | ... | ... |
| 5. | <i>Ṣādji</i> | Complete and hexatonic | <i>Niṣāda</i> | .. |
| 6. | <i>Nandayanti</i> | " | <i>Ṣalja</i> | |
| 7. | <i>Āndhri</i> | " | <i>Ṣalja</i> | |
| 8. | <i>Gāndhārodīcyavā</i> | " | <i>Rṣabha</i> | |
| 9. | <i>Ārṣabhi</i> | Complete, hexatonic and pentatonic | <i>Ṣādja</i> | <i>sa, pa</i> |
| 10. | <i>Gāndhāri</i> | " | <i>Rṣabha</i> | <i>ri, dha</i> |
| 11. | <i>Madhyamā</i> | " | <i>Gāndhāra</i> | <i>ga, ni</i> |
| 12. | <i>Pañcamī</i> | " | " | " " |
| 13. | <i>Dhāivati</i> | " | <i>Pañcamā</i> | <i>pa, sa</i> |
| 14. | <i>Naiṣādi</i> | " | " | " " |
| 15. | <i>Ṣādjadīcyavā</i> | " | <i>Rṣabha</i> | <i>ri, pa</i> |
| 16. | <i>Ṣādja-madhyamā</i> | " | <i>Niṣāda</i> | <i>ni, ga</i> |
| 17. | <i>Raktagāndhāri</i> | " | <i>Rṣabha</i> | <i>ri, dha</i> |
| 18. | <i>Kaiṣiki</i> | " | " | " " |

(Chart 30)

1. That is, they never form any hexatonic and pentatonic varieties.
2. That is, they form complete as well as hexatonic varieties.
3. Similarly, these ten form complete, hexatonic as well as pentatonic varieties.

(vi) जातिषु स्वरसाधारणनियमः

पञ्चमीमध्यमाषड्जमध्यमाऽऽख्यासु जातिषु ।
स्वरसाधारणं प्रोक्तं मुनिभिर्भरतादिभिः ॥२१॥

अंशेषु समपेक्षेतद्यथास्वनियमाद्भवेत् ।
एतदल्पनिगास्वाहुः कम्बलाश्रतरादयः ॥२२॥

अल्पद्विश्रुतिके रागभाषाऽऽदावपि तन्मतम् ।
निगयोरंशयोः षड्जमध्यमायां न तद्भवेत् ॥२३॥

विकृता एव तत्रापि स्वरसाधारणाश्रयाः ।

(vi) The rule pertaining to the overlapping of notes in certain *jāti-s* : 21-24b

Overlapping of notes¹ has been mentioned by sage Bharata and others in relation to *jāti-s*² called *pañcamī*, *madhyamā* and *ṣaḍjamadhyamā*. (21)

It³ should accordingly be (applied) in relation to *sa*, *ma* and *pa* (employed) as fundamental notes as per their respective rule⁴ in the *jāti-s* having weak (*alpa*) *ni* and *ga*, as declared by Kambala, Aśvatara and others. (22)

Overlapping of notes has been dealt with in Section 5 ante. Briefly it implies, in this context, the use of *antara-gāndhāra* and *kākalī-niṣāda* in some *jāti-s* and *rāga-s*, *bhāṣā-s*, etc. that have weak *ni* and *ga* and have *sa*, *ma* or *pa* as their fundamental notes. There are three, *pañcamī*, *madhyamā* and *ṣaḍja-madhyamā*. The overlapping of notes in these *jāti-s* is recommended by Bharata, Kambala and Aśvatara, and is to be introduced with reference to their fundamental notes *sa*, *ma* and *pa* according to the rules laid down in each case in Section 5 (verse 4-7) ante. 'S' elucidates this point, "overlapping of notes is to be applied in case of the fundamental notes *sa*, *ma* and *pa* as per the rule. How?, so that the respective note-positions are not transgressed. In case of *ṣaḍja* being the fundamental note, it is the overlapping of *ṣaḍja*, and when

1. *Svāra-sādhāraṇa*.

2. The *jāti-s* related to the overlapping notes are three in number.

3. It refers to the overlapping of notes.

4. Cf. S. R. I. 5 4-6.

This is also true of the *rāga*, *bhāṣā* and other formations⁵ with weak *ni* and *ga*⁶; but however, it is not applicable to *ni* and *ga* when (used) as the fundamental notes of *ṣaḍja-madhyamā*. Even so, only the modified *jāti-s* (can) take resort to the overlapping of notes (23a-24b).

madhyama and *pañcamā* are the fundamental notes then it is the overlapping of *madhyama* that takes place." In this context Thakur Onkar-nath has made interesting observations with regard to the question of *pañcamā* and its technical accuracy in being named as *madhyama sādharāṇa*, i. e. the overlapping of *madhyama*. It is also observed by him that the justification for *sa*, *ma* and *pa* being the only notes which, when used as fundamental notes, provide for the overlapping of notes in the three *jāti-s* lies in the fact that, they are placed at a distance of four *śruti-s* from their preceding notes; and it is the interval of four *śruti-s* that is the minimum required for the process (cf. *Prāṇava Bhārati*, p. 254).

Ṣaḍja-madhyamā has all the seven notes for its fundamental note and therefore the author makes a specific exception to the effect that the overlapping of notes cannot take place in it in case *ga* and *ni* are employed as the fundamental notes. This is in accordance with the rule that *antara-gāndhāra* and *kākalī-niṣāda* cannot become fundamental notes because of being modified (vide N. S., G. O. S. Vol. IV, p. 32).

(vii) जातिगतांशस्वरगणना

एकांशा नन्दयन्ती च मध्यमादीच्यवा तथा ॥२४॥

गान्धारपञ्चमीत्येतास्तिस्रो द्वयंशास्तु ध्रुवती ।

गान्धारोदीच्यवा चाथ पञ्चमीत्युदिता इमाः ॥२५॥

नैषाद्यार्षभिकाषड्जकैशिक्यस्त्र्यंशिका मताः ।

आन्ध्रोकामरिवीषड्जोदीच्यवाश्रतुरंशिकाः ॥२६॥

पञ्चांशा रक्तगान्धारी गान्धारी मध्यमा तथा ।

षाड्जीत्येताश्रतत्रः स्युः षडंशैकैव कैशिकी ॥२७॥

सप्तांशा सूरिभिः षड्जमध्यमा परिकीर्तिता ।

इति त्रिषष्टिरंशाः स्युर्जातिष्वष्टादशस्वमे ॥२८॥

5. According to 'K' *rāga* includes *grāma-rāga-s*, *uparāga-s* and *rāgas-s*; while *bhāṣā* includes *vibhāṣā-s* and *antara-bhāṣā-s* as well, and 'other formations' refer to *ragāṅga-s*, *kriyāṅga-s* and *upāṅga-s*.

6. Literally, notes having two *śruti-s*.

(vii) The number of fundamental notes in different *jāti-s* :
24c-28

The three (*jāti-s*) *nandayanti*, *madhyamodīcyavā* and *gāndhārapāñcamī* have one fundamental note; *dhaivatī*, *gāndhārodīcyavā* and *pañcamī* are said to be having two fundamental notes; *naiṣādi*, *arṣabhī* and *ṣaḍja-kaiśikī* are considered as having three fundamental notes; *āndhrī*, *kārmāravi* and *ṣaḍjodīcyavā* have four fundamental notes; the four, *rakta-gāndhārī*, *gāndhārī*, *madhyamā* and *ṣaḍjī* have five fundamental notes; *kaiśikī* is the only one having six fundamental notes, while *ṣaḍja-madhyamā*, as declared by the sages, has seven fundamental notes; thus, among these eighteen *jāti-s* there are sixty-three fundamental notes. (24c-28).

The notes that are capable of being used as the fundamental notes in the different *jāti-s* in consonance with the above scheme are indicated by 'K' as follows :

The fundamental notes of *jāti-s*

| S. No. | Name of <i>jāti</i> | No. of fundamental notes | The fundamental notes |
|--------|-------------------------|--------------------------|-----------------------------|
| 1. | <i>Nandayanti</i> | 1 | pa |
| 2. | <i>Madhyamodīcyavā</i> | 1 | pa |
| 3. | <i>Gāndhāra-pāñcamī</i> | 1 | pa |
| 4. | <i>Dhaivatī</i> | 2 | ri, dha |
| 5. | <i>Gāndhārodīcyavā</i> | 2 | sa, ma |
| 6. | <i>Pañcamī</i> | 2 | ri, pa |
| 7. | <i>Naiṣādi</i> | 3 | ni, ri, ga |
| 8. | <i>Arṣabhī</i> | 3 | ri, ni, dha |
| 9. | <i>Ṣaḍjakaiśikī</i> | 3 | sa, ga, pa |
| 10. | <i>Āndhrī</i> | 4 | ri, ga, pa, ni |
| 11. | <i>Kārmāravi</i> | 4 | ri, pa, dha, ni |
| 12. | <i>Ṣaḍjodīcyavā</i> | 4 | sa, ma, dha, ni |
| 13. | <i>Rakta-gāndhārī</i> | 5 | sa, ga, ma, pa, ni |
| 14. | <i>Gāndhārī</i> | 5 | sa, ga, ma, pa, ni |
| 15. | <i>Madhyamā</i> | 5 | sa, ri, ma, pa, dha |
| 16. | <i>Ṣaḍjī</i> | 5 | sa, ga, ma, pa, dha |
| 17. | <i>Kaiśikī</i> | 6 | sa, ga, ma, pa, dha, ni |
| 18. | <i>Ṣaḍjamadhyamā</i> | 7 | sa, ri, ga, ma, pa, dha, ni |

Total 63

(Chart 31)

The total number of fundamental notes in these eighteen *jāti-s* is sixty-three; but this is so only if complete *jāti-s* are taken into account. 'S', quoting Mātāṅga, points out that in the hexatonic *jāti-s* the number of fundamental notes is reduced to forty-seven. Explaining the loss of sixteen in the process he says that, nine fundamental notes are accounted for by the four *jāti-s* that are always complete, viz. *kārmāravi* (4); *gāndhāra-pāñcamī* (1), *ṣaḍjakaiśikī* (3) and *madhyamodīcyavā* (1) and seven belong to *ṣaḍja-madhyamā*, *ṣaḍjī*, *ṣaḍjodīcyavā*, *kaiśikī* and *rakta-gāndhārī* which are considered to be exceptions to this process. These exceptions are mentioned by Bharata : "The *ṣaḍja-madhyā* should have no hexatonic treatment including *niṣāda* (lit. the seventh), and there should be no *gāndhāra* there, because of an elimination of its consonant note; and the *gāndhārī*, the *rakta-gāndhārī* and the *kaiśikī* should have no *pañcamā*, and the *ṣaḍjī* should have no *gāndhāra*, and the *ṣaḍjodīcyavā* no *dhaivata* in their hexatonic treatment. These seven (notes) are to be discarded in connexion with the hexatonic treatment of the *jāti-s* named, because of the elimination of their consonant notes (N. S., XXVIII. 65-69, Eng. Trans. by M. Ghosh, Vol. II. p. 18).

Similarly, in the hexatonic *jāti-s* there are only thirty fundamental notes. That is, out of the remaining fortyseven, twelve are dropped in this process because they belong to *jāti-s* that are always complete and hexatonic, viz. *ṣaḍjī* (5), *nandayanti* (1), *āndhrī* (4) and *gāndhārodīcyavā* (2); and five more are left out by way of exception. And he ('S') quotes the following verse of Bharata in support of this statement : "The pentatonic treatment relates to five notes (in a *grāma*) and is known as being of ten kinds. Its subdivisions are thirty and have been mentioned before (N. S. XXIII 98, Eng. Trans. by M. Ghosh, Vol. II, p. 23).

ख. जातीनां त्रयोदश-सामान्यलक्षणानि

ग्रहंशतारमन्द्राश्च न्यासापन्यासको तथा ।
अपि संन्यासविन्यासौ बहुत्वं चाल्पता ततः ॥२९॥
एतान्यन्तरमार्गेण सह लक्ष्माणि जातिषु ।
षाडवोडुविते क्वापोत्येवमाहुस्त्रयोदश ॥३०॥

B. Thirteen factors characterising *jāti-s* : 29-57b

Thirteen characteristic features are spoken of *jātis*, viz. the initial note, the fundamental note, the high (pitch range) the low (pitch range), the final note, the semfinal note,

*samnyāsa*¹, *vinyāsa*², profusion, rareness, *antaramārga*³ and the hexatonic and the pentatonic (treatment) in some.⁴ (29-30)

Bharata and Mātāṅga have spoken of only ten characteristic features of *jāti-s* discounting *samnyāsa*, *vinyāsa* and *antaramārga*, distinctly enunciated by Śārāṅgadeva. 'K' points out that since *samnyāsa* and *vinyāsa* refer to particular sections (*vidāri-s*) of compositions, they are essentially covered by the semifinal note in the older scheme. Similarly, *antaramārga* being dependent upon the mutual relationship of the fundamental note and the other factors, is not separately indicated there. However, he justifies an explicit and definite mention of *samnyāsa* and *vinyāsa* apart from the other ten features on the ground that they form separate parts of the composition. Similarly, he says that since *antaramārga* has a distinct function without which the melody cannot proceed, it deserves to be considered as an essential and distinct feature. The technical terms involved here will presently be defined and explained by the author.

1. ग्रह

गोतादिनिहितस्तत्र स्वरो ग्रह इतीरितः ।

तत्रांशग्रहयोरन्यतरोक्तावुभयग्रहः ॥३१॥

1. The initial note (*graha*) : (31)

Of these¹, the note that is placed in the very commencement of the melody² is known as *graha* (the initial note). Where either of the two, the initial or the fundamental note is mentioned, both are (thereby) comprehended. (31)

Now, the author goes on to define each of the thirteen characteristic features essentially found to constitute *jāti-s*. Of these, the initial note (*graha*) is defined as the note with which a melody is

1-3. *Samnyāsa*, *vinyāsa* and *antaramārga* have not been rendered into English, firstly because these concepts are hardly used by the author in the individual description of the *jāti-s* and secondly, because it is not considered to be as advantageous as it is difficult. These terms are defined by the author subsequently.

4. That is, leaving aside the *jāti-s* that are always complete such as *kārmāraṅgi* and so on.

1. The thirteen characteristic features.

2. Lit. a song or in this context *jāti*.

commenced. It is said that, practically the initial note is the same as the fundamental note (*amśa*) in all *jāti-s*; and therefore the two terms are interchangeable. So, of these two where only one is mentioned, the other is invariably implied to be the same, and to be mentioned thereby. If, only the fundamental note is mentioned, that itself is to be taken as the initial note, and vice versa. Since the fundamental notes are sixty-three, the initial notes too are sixtythree. Does it mean that there is no difference between the initial and the fundamental note? The difference between the two is functional; whereas the fundamental note, as pointed out by 'S', functions merely as sonant (*vādi*), the initial note is fourfold. And moreover, being the originator of *rāga*, the fundamental note is of primary importance, whereas the initial note is of a secondary importance. This difference, theoretical as it is, will be further discerned from the definition of the fundamental note.

Graha is literally and semantically defined as the note that takes hold of the song or by which the song is initiated (lit. held).

2. अंशः

यो रक्तिव्यञ्जको गेये यत्संवाद्यनुवादिनो ।

विदार्या बहुलौ यस्मात्तारमन्द्रव्यवस्थितिः ॥३२॥

यः स्वयं यस्य संवादी चानुवादी स्वरो ऽपरः ।

न्यासापन्यासविन्याससंन्यासग्रहतां गतः ॥३३॥

प्रयोगे बहुलः स स्याद्वाद्यंशो योग्यतावशात् ।

बहुलत्वं प्रयोगेषु व्यापकं त्वंशलक्षणम् ॥३४॥

2. The fundamental note (*amśa*): (32-34)

The note that is expressive of delightfulness in a melody¹ and the consonants and assonants of which are profuse in a sub-section (of the composition)², that which determines the position of the higher and the lower pitch

1. *Geya* lit. means 'worthy of singing' or, in other words, 'vocal composition' which in this system also speaks for the instrumental music.

2. *Vidāri* is defined as *gīta-khaṇḍa*, i. e. a sub-section of a melody. As 'S' elucidates, "*vidāri* is that which divides either the tonal content or the verbal content of a melody and is thereby twofold, viz. *gīta-vidāri*, i. e. a melodic divisor or a *padavidāri*, i. e. a verbal divisor." (S. R. I, p. 183).

range³, that which is its own consonant but which has another note as assonant, that which is capable of being the final note, the semifinal note, *vinyāsa*, *samnyāsa* and the initial note, that which is frequently employed in practice, and is the sonant (*vādi*) becomes the fundamental note (*amśa*) because of its efficiency⁴. However, in performance (*prayoga*), profusion⁵ (*bahulatvam*) is the (most) comprehensive characteristic mark of the fundamental note. (32-34)

The word *amśa* literally means a constituent part and 'S' conjectures a semantic derivation saying that *amśa* is that which divides the *jāti-rāga-s*. Perhaps this is relevant to that function of the fundamental note in accordance with which the higher and the lower pitch range of a *jāti* is determined with reference to it.

It has been specified that the fundamental note is expressive of delightfulness in a musical composition. 'K' points out that in so far as the fundamental note is delightful as every other note (*svāra*) intrinsically is, it is not different from the rest of them; therefore the significance of this attribute lies in the fact that the fundamental note is not only delightful by itself like every other note but is expressive of the delight inherent in the mutual relation of notes in the musical composition as a whole. This is analogous to the beauty of the meaning implied by the words in their mutual relationship in a sentence as a whole, apart and different from their individual literal meaning.

Another important function of the fundamental note, as already referred to, is to determine the range of the higher and the lower registers which will be further defined presently in a short while by the author. The terms *samvādi* (consonant) and *anuvādi* (assonant) have already been defined by the author in Section 3.

The other distinguishing features of the fundamental note indicated include the fact that it is capable of being its own consonant at times, as elucidated by 'K'. This may be observed in contra-distinction to the assonant which is necessarily to be a different note, i. e. other than

3. *Tāra* and *mandra* lit, high and low, in this context signify the two extremes of pitch range in which a *jāti* is composed.
4. *Yogyatā* (efficiency) is explained by 'K' as 'potency to delight', brought into being conjointly by the characteristic features attributed to the fundamental note as enumerated in the text (S. R. I, p. 182).
5. *Bahulatvam* or *Bahutvam* signifies frequent recurrence.

the fundamental note. And 'K' explains these two relations on the analogy of a king who sometimes may perform the functions of a minister but never of a servant. Śārāgadeva's statement that occasionally the fundamental note is capable of functioning as its own consonant is notable in view of the general principle of Bharata that the consonant of the fundamental cannot be omitted. It is an indirect pointer to the existence of melodic structures in Śārāgadeva's times that did not probably employ the consonants of the fundamental note at all, as can be observed in some of the current *rāga-s* of Hindustani music. As Bṛhaspati aptly remarks that "Rāga-s like *māravā*, *pūriyā*, *gūjari* and *sohanī* do not belong to the *mūrccanā* system and therefore their fundamental note is said to be its own consonant." And to support his contention he pointedly cites Śārāgadeva's definition of *amśa* (fundamental note) in this respect as a proof (cf. S. Chintāmaṇi, p. 127).

The capacity of the fundamental note to function as the final and the semifinal note, the *samnyāsa* and *vinyāsa* accounts for its profusion. It is interesting to observe how Bharata defines it :

"The *amśa* (is that note in the song) on which its charm (*rāga*) depends, and from which the charm proceeds, is the basis of the variation into low (*mandra*) and high (*tāra*) pitches depending on the (first) five notes (*pañcavarāḥara*) and in the combination of many notes it is perceived prominently (*atyartham*); and moreover other strong notes may be to it in relation of consonance and assonance, and it is related to *graha*, *apanyāsa*, *vinyāsa*, *samnyāsa* and *nyāsa* (notes) and it lies scattered throughout the song." (N. S. XXVIII 76-78; Eng. Tr. by M. Ghosh, vol. II pp. 19, 20).

Obviously the definition of Śārāgadeva is polished and more precise in describing the various functions of the fundamental note. Dattila relates the higher pitch range (*tāra*) as five notes rising up from the fundamental note (cf. Dattilam, 57). This subject is, however, presently being dealt with by our author.

3. तारः

मध्यमे सप्तके ऽंशः स्यात्तस्मात्तारस्थितात्परान् ।

स्वरांश्रतुर आरोहेदेष तारावधिः परः ॥३५॥

अर्वाक्तु कामचारः स्यात्तारे लुप्तो ऽपि गण्यते ।

आतारषड्जमारोहो नन्दयन्त्यां प्रकोत्तितः ॥३६॥

3. The higher pitch range (*tāra*) : (35-36)

The fundamental note is (placed) in the middle heptad¹, and from there² in the upper heptad, (one) may ascend upto four notes: this is the maximum limit for the higher pitch range; below that however, the movement is at discretion. In relation to the higher pitch range, the eliminated note too is taken into account.³ In *nandayanti* the ascending movement is said to be upto the upper *ṣaḍja*. (35-36).

'K' elucidates that by the middle heptad, the seven notes of the middle register are indicated. The procedure for regulating the ascending movement with reference to the maximum pitch of the higher pitch-range is such that the fundamental note has to be in the middle register and one can ascend upto four notes from it in the upper register, i. e. four notes beyond the high (*tāra*) *madhyama* in the *madhyama-grāma* and beyond the high *ṣaḍja* in the *ṣaḍja-grāma*. For example, as interpreted by 'K', *ṣaḍja* being the fundamental note in the middle heptad of the *ṣaḍja-grāma*, its last limit for the higher pitch range will be four notes beyond the high *ṣaḍja* excluding it, viz. the high *pañcama*; but in the case of the middle *madhyama* being the fundamental note in the *madhyama-grāma*, its notes beyond the high *madhyama* will be up to *niṣāda* and not beyond it, i. e. four notes to be counted in this case include *madhyama*, the starting note. This is so because in *madhyama-grāma* one cannot possibly go beyond the high register (as per the text), and in *ṣaḍja-grāma* even though beyond high *pañcama* we have high *dhaiṣata* and *niṣāda*, it will not be conducive to aesthetic delight to take resort to them in practice, even though one may be able to do so. But, however, Bharata has permitted the higher pitch range to be extended upto five or even seven notes beyond the fundamental note in the high register:

"The high pitch movement (*tāragati*) depending on the first five notes, e. g. the raising of the pitch from any of the *aiśā* (notes) should

1. *Saptaka* comprehends seven notes of the scale and is analogous to the Western concept of the octave, but in order to distinguish it with respect to the number of notes it has been called 'heptad'.
2. That is, the position of the fundamental note in the high register.
3. In other words, it is counted as constituting the No. 4 despite the fact of its elimination, for the purposes of determining the higher pitch range in a *jāti*.

be upto the note fourth from it, or it may be to the fifth note even,⁴ but not to any beyond it." (N. S. XXVIII 93-94; Eng. Trans. M. Ghosh Vol. II. p. 21)

It is notable that whereas Bharata provides for the ascending movement to take place from any of the fundamental notes of a *jāti* Kallinatha, in his interpretation of Śārāgadeva, specifies *ṣaḍja* and *madhyama* only in *ṣaḍja-grāma* and *madhyama-grāma* respectively. Obviously he is taking *ṣaḍja* and *madhyama* as the standard notes for *ṣaḍja* and *madhyama-grāma* for the purpose of illustrating the maximum pitch range.

It has already been mentioned that Dattila prescribes the limit of five notes beyond the fundamental note in the high register. It is obvious, however that even the scope of seven notes allowed by Bharata is not to be availed in every case.

In *nandayanti* which is a *jāti* of the *madhyama-grāma* and has *pañcama* as its fundamental note, the ascending movement is limited to the high *ṣaḍja*, for according to Bharata (as quoted by 'K' vide S. R. Vol. I, p. 185 Adyar Ed.), in *nandayanti* the ascending movement must never transcend the high *ṣaḍja*.⁵ The practical implication of this provision is that whereas by the general rule the maximum high range of *nandayanti* with *pañcama* for its fundamental note ought to be four notes beyond *pañcama*, i. e. upto *ri*, Bharata has ordained it to be *ṣaḍja*⁶ as an exception. In other words, in the case of *nandayanti* one can ascend only three and not four notes beyond the fundamental note.

4. मन्द्रः

मध्यस्थानस्थितादंशादामन्द्रस्थांशमाव्रजेत् ।

आमन्द्रन्यासमथवा तदधःस्थरिधावपि ॥३७॥

एषा मन्द्रगतेः सोमा ततोऽर्वाकामचारिता ।

4. The lower pitch range (*mandra*) : (37-38b)

From the fundamental note (placed) in the middle register one may descend¹ upto the fundamental note in the lower register; or alternatively, upto the lower final note²

4. The original Sanskrit text of Bharata also provides for the extent of the seventh note as well as an option, but that seems to have escaped the English version quoted above.

1. Lit. 'may go to' or move.

2. That is, the final note placed in the lower register.

(*nyāsa*) or even upto *ri* and *dha* below that. Such being the ultimate limitations of the descending movement, discretion operates within them. (37-38l)

It seems, as observed by Kallinatha, that the starting point in the *jātī-s* was the middle fundamental (note). The range of pitch in the lower register is, as a general rule fixed as from the middle fundamental (note) to the lower fundamental (note); or alternatively upto the final (note) of the lower register. Here, 'K' interprets '*nyāsa*' (the final) to be the last note of the *grāma*, i. e. *ni* for the *ṣaḍja-grāma* and *ga* for the *madhyama-grāma*, and not as the concluding note of a song. As an exception as it were, it is laid down that in certain cases the descending movement may be carried upto the immediately preceding notes in the two *grāma-s*, viz. *ri* and *dha*. Kallinatha takes this option to be an alternative to the second rule and accordingly interprets *nyāsa* in the above sense. However, it will be worth-while to refer to Bharata who says :

"The low pitch movement is threefold as it is determined by the fundamental note, the final note or the semifinal note. There is lower (pitch) beyond the fundamental (note). In the case of conclusion both (the final and the semifinal notes) are accepted to be in order. However, in the event of *gāndhāra* being the final note, *ṛṣabha* has been observed (to be the last limit)." (Quoted by Kallinatha in his commentary, S. R. Adyar, Vol. I, p. 186).

This shows that the provision of *ri* and *dha* made by Śārṅgadeva cannot appropriately be taken as an (independent) alternative to the second (viz. regarding the final note) but it is given by way of an exception to it. Consequently, Kallinatha's interpretation of '*api*' of the text in the sense of 'alternative' is rather far-fetched. In this regard it is better to take a view that corresponds to Bharata's statement which has no such implications.

Bṛhaspati, who takes the last provision (viz. regarding *ri* and *dha*) to be an exception to the rule pertaining to the fundamental, the final or semifinal note in the lower register marking the limit for the descending movement, illustrates his interpretation with reference to *nandayantī jāṭī* which belongs to the *madhyama-grāma* and has *gāndhāra* for its final note. But as an exception the descending movement in this case is found to be touching *ṛṣabha*. (cf. *Bharataka Saṅgīta Siddhānta* pp. 81, 82).

5. न्यासः

गोते समाप्तिकृन्न्यास एकविंशतिधा च सः ॥३८॥

षाड्ज्यादीनां तु सप्तानां न्यासः स्यान्नामकृत्स्वरः ।

द्वौ नामकारिणौ षड्जमध्यमायां तु तो मतो ॥३९॥

उदीच्यवात्रयं मान्तं निपगान्ता तु कैशिकी ।

कार्मारवी पञ्चमान्ता गान्ताः पञ्चापराः स्मृताः ॥४०॥

5. The final note : (38c-40)

The note with which a musical composition¹ is concluded is the final (*nyāsa*)² note; and that is in twenty-one (forms). (38 cd).

Of the seven (*śuddhā*) *jātī-s* such as *ṣaḍjī* and so on, their denominative note is their final (note). In *ṣaḍja-madhyamā* the two notes designating it are considered to be

The following chart indicates the final notes of the *jātī-s* as described in the text.

The final notes of the *jātī-s*.

| S. No. | Name of <i>jātī</i> | Final notes | S. No. | Name of <i>jātī</i> | Final notes |
|--------|-----------------------|-------------|--------|-------------------------|-------------|
| 1. | <i>ṣaḍjī</i> | sa | 10. | <i>Madhyamodicyava</i> | ma |
| 2. | <i>Ṛṣabhi</i> | ri | 11. | <i>Gāndhārodicyava</i> | ma |
| 3. | <i>Gāndhāri</i> | ga | 12. | <i>Kaiśiki</i> | ni, pa, ga |
| 4. | <i>Madhyamā</i> | ma | 13. | <i>Kārmāraṅgi</i> | pa |
| 5. | <i>Pañcamī</i> | pa | 14. | <i>Ṣaḍja-kaiśiki</i> | ga |
| 6. | <i>Dhāivati</i> | dha | 15. | <i>Rakta-gāndhāri</i> | ga |
| 7. | <i>Naiṣādi</i> | ni | 16. | <i>Gāndhāra-pañcamī</i> | ga |
| 8. | <i>Ṣaḍja-madhyamā</i> | sa, ma | 17. | <i>Āndhri</i> | ga |
| 9. | <i>Ṣaḍjodicyava</i> | ma. | 18. | <i>Nandayanti</i> | ga |

(Chart 32)

1. *Gīta* is interpreted by 'K' as "in the application or practice of *jātī-s*", i. e. in singing '*jātī-s*'. As already indicated, the term *geya* literally refers to vocal melody but includes instrumental compositions as well.

2. *Nyāsa*, as explained by 'K' is not merely the final note; it is a note that brings the song to such a conclusion that leaves no anticipation in listening. The word literally means 'that by which one gives up, or by which one is relieved.'

its final notes. The triad of *udīcyavā*³ ends with *ma*, while *Kaiṣiki* has *ni*, *pa* and *ga* for its finals. *Kārmāravī* ends with *pañcama* and the remaining five⁴ are known to be ending with *ga*. (39-40)

It will be observed that of these eighteen *jāti-s* *ṣaḍja-madhyamā* has two, *kaiṣiki* has three and the rest of the sixteen have one final note each, making a total of twentyone.

6. अपन्यासः

अपन्यासस्वरः स स्याद्यो विदारोसमापकः ।
 कार्मारव्यां च नैषाद्यामान्ध्रीमध्यमयोस्तथा ॥४१॥
 आर्षभ्यां च स्वरा ये ऽंशास्ते ऽपन्यासाः प्रकीर्तिताः ।
 उदोच्यवानां त्रितये ऽपन्यासो षड्जध्वतो ॥४२॥
 मध्यमो रक्तगान्धार्या गान्धार्या षड्जपञ्चमी ।
 सनिपाः षड्जकेशिक्यां पञ्चम्यां निरिपाः स्मृताः ॥४३॥
 रिपौ गान्धारपञ्चम्यां षाड्ज्यां गान्धारपञ्चमी ।
 धैवत्यां रिमधाः प्रोक्ता नन्दयन्त्यां सपौ मती ॥४४॥
 रिवर्ज्याः षट् च केशिक्यां सप्तापीत्युचिरे परे ।
 सप्तस्वरापन्यासां तु भाषन्ते षड्जमध्यमाम् ॥४५॥
 अत्र येऽंशा अपन्यासास्ते स्युरेकोनविंशतिः ।
 सप्तत्रिंशत्परे ते च षट्पञ्चाशत्तु संयुताः ॥४६॥
 केशिक्यां सप्तपक्षे तान्सप्तपञ्चाशतं विदुः ।

6. The semifinal note (*apanyāsa*): 41-47b)

The note that concludes a sub-section¹ of a musical composition is the semifinal note. (41ab)

3 The three *udīcyavā-s* are *ṣaḍjodīcyavā*, *madhyamodīcyavā*, and *gāndhāroḍīcyavā*.

4. The remaining five are *ṣaḍja-kaiṣiki*, *rakta-gāndhārī*, *gāndhāra-pañcamī*, *āndhrī* and *nandayantī*.

1. *Vidartī* literally means that which divides the composition and therefore is translated as 'sub-section' to distinguish it from 'section' (*dh tu*) and part (*aṅga*) used in Chap. IV (Also see note 2 to verses 32-34 ante).

In *kārmāravī*, *naiṣāḍī*, *āndhrī*, *madhyamā* and *arṣabhī* the notes that are the fundamental notes, are known to be the semifinal notes (*apanyāsa*). In the triad of *udīcyavā*, *ṣaḍja* and *dhaivata* are the semifinal notes; *madhyama* is² in the *rakta-gāndhārī*, *ṣaḍja* and *pañcama* are³ in *gāndhārī*, *sa*, *ni* and *pa* in⁴ *ṣaḍja-kaiṣiki*, and *ni*, *ri* and *pa* are known to be in⁵ *pañcamī*. *Ri* and *pa* in⁶ *gāndhāra-pañcamī*, *gāndhāra* and *pañcama* in⁷ *ṣaḍjī* and *ri*, *ma* and *dha* are⁸ to be in *dhaivatī*, (and) *ma* and *pa* are accepted in *nandayantī*. Leaving aside *ri*, the (remaining) six⁹ (notes) are in *kaiṣiki*, while even seven are told¹⁰ by

The semifinal note according to 'S' marks the completion of sub-sections in a composition and in the words of Mātāṅga (quoted by him), it presents the appearance of the conclusion of the composition.

The following chart indicates the semifinal notes of the eighteen *jāti-s* as described in the text.

The semifinal notes of *jāti-s*

| S. No. | Name of <i>jāti</i> | Semifinal No. notes | S. No. | Name of <i>jāti</i> | Semifinal No. notes | |
|--------|------------------------|---------------------|--------|-----------------------------|-------------------------------|--------|
| 1. | <i>Kārmāravī</i> | ri, pa, dha, ni | 4 | 10. <i>Gāndhārī</i> | sa, pa | 2 |
| 2. | <i>Naiṣāḍī</i> | ni, ri, ga | 3 | 11. <i>Ṣaḍjakaiṣiki</i> | sa, ni, pa | 3 |
| 3. | <i>Āndhrī</i> | ri, ga, pa, ni | 4 | 12. <i>Pañcamī</i> | ni, ri, pa | 3 |
| 4. | <i>Madhyamā</i> | sa, ri, ma, pa, dha | 5 | 13. <i>Gāndhāra-pañcamī</i> | ri, pa | 2 |
| 5. | <i>Arṣabhī</i> | ri, ni, dha | 3 | 14. <i>Ṣaḍjī</i> | ga, pa | 2 |
| 6. | <i>Ṣaḍjodīcyavā</i> | sa, dha | 2 | 15. <i>Dhaivatī</i> | ri, ma, dha | 3 |
| 7. | <i>Madhyamodīcyavā</i> | sa, dha | 2 | 16. <i>Nandayantī</i> | ma, pa | 2 |
| 8. | <i>Gāndhāroḍīcyavā</i> | sa, dha | 2 | 17. <i>Kaiṣiki</i> | sa, ga, ma, pa, dha, ni, (ri) | 6 or 7 |
| 9. | <i>Rakta-gāndhārī</i> | ma | 1 | 18. <i>Ṣaḍjama-dhyamā</i> | sa, ri, ga, ma, pa, dha, ni | 7 |

(Chart 33)

2-10. Though the word *apanyāsa* (semifinal note) is not used in the text it is implied in the context and even in the translation it has been left as 'understood' in order to avoid unnecessary repetition of the word.

some. *Ṣaḍja-madhyamā* is said to be having seven notes as its semifinal notes. (40-45).

In this context, the semi-final notes that are (identical with) the fundamental notes¹¹ are nineteen¹², others are thirtyseven, and when put together they are fiftysix. In the event of seven being (counted) in *kaiṣikī*, they¹³ are known to be fiftyseven in all (46-47b).

7. संन्यासः

अंशाविवादो गीतस्याद्यविदारोसमाप्तिकृत् ॥४७॥
संन्यासो ऽंशाविवाद्येव

8. विन्यासः

, विन्यासः स तु कथ्यते ।

यो विदारोभागरूपपदप्रान्ते ऽवतिष्ठते ॥४८॥

7. *Sainnyāsa* : (47c-48a)

Sainnyāsa is the concluding note of the first sub-section¹ of a musical composition with the provision that it is not a dissonant of the fundamental note. (47c-48a)

'K' interprets *amīśa-avivādi* (not dissonant to the fundamental note) to imply that it should be a consonant to it. But the expression being negative only forbids the dissonant of the fundamental note from becoming a *sainnyāsa* (note) and does not affirm it positively to be either

11. *Amīśa* is printed as *antya (nyāsa)* in the Adyar edition. 'S' clearly reads *amīśa*, 'K' is silent and K. R. follows the reading of 'S' (cf. S. R. Vol I, p. 125). This reading is further supported by S. Raj (II.1.4.94) wherein it is stated that the semifinal notes identical with the fundamental notes are nineteen. However, it is only with reference to the *śuddha jāti-s* that this statement holds good. In view of further evidence in the text pertaining to the description of individual *jāti-s*, such as *aṣṭabhī* etc. the reading *amīśa* has been preferred in our text.

12. These are indicated in item No. 1-5 of the above chart.

13. 'They' stands for *apanyāsa-s* (the semifinal notes).

1. Obviously more than one sub-section is visualised in a *jāti*. As already mentioned, *vidartī* is rendered as sub-section in order to distinguish it from section (*dhātu*) and part (*aṅga*), though it rather could as well mean a section.

8. *Vinyāsa* : (48bd)

Similarly, *vinyāsa* is the note that stands at the end of a *pada*² forming a part of a sub-section and is not related to the fundamental note as its dissonant. (48b+d)

consonant or assonant. Obviously, therefore, it can be either of them. Indeed Mātāṅga expresses the same view interpreting the same expression in the context of *vinyāsa*.

Vidartī is a sub-section of a musical composition, and it is divided by certain notes that conclude certain patterns of tonal movement and phrases structured upon meaningful words or syllabic units; and such a note is known as *vinyāsa*, with the other qualifications of *sainnyāsa*. That is why Mātāṅga considers it to be a qualified *sainnyāsa*, as he says: "This (note) itself which is *sainnyāsa* becomes *vinyāsa* if it occurs at the close of a portion (*pada*); and therefore it is said to be functioning as the consonant or the assonant (note) of the fundamental (note) at the close of a *pada* (Quoted by 'S' in his commentary). 'K' notably points out that since all the notes excepting the dissonants can function as *sainnyāsa* and *vinyāsa*, they have not been enumerated, their number being too great.

9. बहुत्वम्

अलङ्घनात्तथा ऽभ्यासाद्बहुत्वं द्विविधं मतम् ।

पर्यायांशे स्थितं तच्च वादिसंवादिनोरपि ॥४९॥

9. Profusion (*bahutva*) : (49)

Profusion¹ is accepted to be twofold : by non-overstepping² and by repetition³. It abides in the co-fundamental note⁴, as also in the sonant and the consonant. (49)

2. *Pada* literally means a complete or inflected word, i. e. a meaningful word, a quarter or a line of stanza, a part, portion or division (as of a sentence) etc. Here it seems to have been used in the sense of a meaningful word or a specified syllabic unit devoid of meaning.

1. *Bahutva* of the text.

2. *Laṅghanam* literally means overstepping in the sense of by-passing without physically avoiding a note entirely.

3. *Abhyāsa* is a technical term in Sanskrit grammar, implying a single repetition. Here it has been used in an extended meaning, implying multiple repetition.

4. *Paryāyamāṅga* refers to those notes that are capable of being employed as fundamental notes in the same *jāti*.

Bahutvam, i. e. profusion is defined with reference to *alpatvam*, i. e. rareness, and is considered as the opposite concept. Since rareness is considered to be twofold, correspondingly profusion too is accepted as such. Rareness is obtained through overstepping and by unexercised use of a particular note. Overstepping (*laṅghanam*) is defined by 'K' as 'iṣatsparśa', i. e. a slight touch, which is aptly explained by 'K. R.' as lightly passing over, so that it does not imply an all-out omission. Non-overstepping implies the absence of overstepping which according to 'K' means 'touching fully', probably in contrast with 'touching slightly' in the case of rareness.

Abhyāsa is defined by 'K' as repetition, which he explains to be twofold, viz. uninterrupted and frequent. Constant repetition of a note without being interrupted by others illustrates the former, and interrupted but frequent repetition the latter.

There is some difference in the interpretations of the two commentators with regard to the text of 49 cd. According to 'K' "That twofold profusion abides in the *paryāyāmsā*, i. e., the fundamental note other than that which is the sonant, and even in the sonant and the consonant." On the other hand, 'S' interprets: "Profusion is another name for 'sonant and consonant'. If the profusion is by non-overstepping, it is sonant and that which is by repetition is consonant." 'K. R.' thinks that probably 'S' had a different reading of the text which he reconstructs as—"paryāyo'mīse sthitam tac-ca vādi-samvādino r-āpi" which he translates as—"That (profusion) abiding in the *amsā* will be the synonym of *vādi* and *samvādi*."

10. अल्पत्वम्

अल्पत्वं च द्विधा प्रोक्तमनभ्यासाच्च लङ्घनात् ।
अनभ्यासस्त्वन्शेषु प्रायो लोप्येष्टवप्योष्यते ॥५०॥
ईषत्स्पर्शो लङ्घने स्यात्प्रायस्तल्लोप्यगोचरम् ।
उशान्ति तदनंशे ऽपि क्वचिद्गीतविशारदाः ॥५१॥

10. Rareness (*alpatva*):

Rareness¹ is said to be twofold, viz. by the absence of repetition² and by overstepping. Absence of repetition is

1. *Alpatvam* of the text.
2. *Abhyāsa* of the text which has already been explained.

(practised) with regard to the non-fundamental notes³ and is generally desired in (the case of) the eliminated⁴ notes. (50)

Overstepping⁵ is slightly touching and is generally observed among the eliminated notes. Musicologists, sometimes, admit it⁶ even in (the case of) non-fundamental notes. (51)

Alpatva (rareness) of a note is secured by reversing the process of profusion, viz. by non-repetition and by overstepping. Not to repeat is to take (sing) only once as elucidated by 'K'. That is practised with regard to the notes other than the fundamental ones and those that are to be eliminated in the process of forming hexatonic and pentatonic varieties.

11. अन्तरमार्गः

न्यासादिस्थानमुज्झित्वा मध्ये मध्ये ऽल्पतायुजाम् ।
स्वराणां या विचित्रत्वकारिण्यंशादिसंगतिः ॥५२॥
अनभ्यासैः क्वचित्क्वापि लङ्घनेरेव केवलैः ।
कृता सा ऽन्तरमार्गः स्यात्प्रायो विकृताजातिषु ॥५३॥

11. *Antaramārga*: (52-53)

Sparing the positions of the final and other¹ notes, taking in-between the rare² notes intermittently³, the concordance that is established with the fundamental and other⁴

3. Notes other than the fundamental ones, i. e. the sonant and the co-fundamental notes.
4. That is, the notes omitted in order to form hexatonic (*ṣaḍṭava*) and pentatonic (*auṣṭava*) structures.
5. *Laṅghanam* of the text.
6. 'It' stands for overstepping.
1. The positions of the final, the semifinal, the initial and the fundamental notes as well as the *samnyāsa* and *vinyāsa* notes, according to 'K'.
2. *Alpatva-yujām svarāṅgām* literally rendered would read, "of the notes served with rareness", i. e. rare notes.
3. *Madhye madhye* : The repetition of *madhya* is suggestive of intermittent occurrence of the rare notes in-between the positions of notes enumerated in (1) above.
4. *Adi* is interpreted by 'K' here as well, as referring to the initial, the semifinal and such other notes.

notes which creates an artistic variety⁵ sometimes by non-repetition and somewhere by overstepping only, is (called) *antaramārga* and is generally (found) among modified *jāti-s*. (52-53)

12. षडवम्

षडवन्ति प्रयोगं ये स्वरास्ते षडवा मताः ।
षट्स्वरं तेषु जातत्वाद्गीतं षडवमुच्यते ॥५४॥

13. औडुवम्

वान्ति यान्त्युडवो ऽत्रेति व्योमोक्तमुडुवं बुधैः ।
पञ्चमं तच्च भूतेषु पञ्चसंख्या तदुद्भवा ॥५५॥
ओडुवो सा ऽस्ति येषां च स्वरास्ते त्वौडुवा मताः ।
ते संजाता यत्र गीते तदौडुवितमुच्यते ॥५६॥
तत्सम्बन्धादौडुवं च पञ्चस्वरमिदं विदुः ।
क्रमादल्पाल्पतरते षडवौडुवकारिणोः ॥५७॥
सम्पूर्णत्वदशायां स्तः, पञ्चम्यां तु विपर्ययः ।
वचनं विधिरप्राप्ताविहाल्पत्वबहुत्वयोः ॥५८॥
परिसंख्या द्वयोः प्राप्तावेकस्यातिशयाय यत् ।

12 & 13. Hexatonic (*ṣaḍava*) and pentatonic (*auḍuva*) formation : (54-59 b)

The six notes that preserve¹ a (musical) performance² are accepted to be hexatones, and the song arising out of those six is called hexatonic (*ṣaḍava*). (54)

5. 'K' elucidates that the consonance with the fundamental note etc., becomes delightful when served by the ascending and other movements creating wonderful tonal structures with note-series and so on.
1. *Avanti* lit. means protect (from the root *av* to protect).
2. *Prayoga* technically means 'performance or rendering' and in this context, it pertains to a musical composition or a song. The word is otherwise applicable to all the performing arts.

(Because) here, in the sky, the stars (*uḍu-s*) move about, it is called *uḍuvam* by the sages; and that is fifth among the (great) elements³; the number five derived from it⁴ is *auḍuvi* (fiver), and (therefore) the notes of that (number) are accepted to be *auḍuva* (pentatones). When these⁵ as such occur in a musical composition⁶ it is said to be 'made as pentatonic' (*auḍuvita*) and this group⁷ of five notes being related to it is known⁸ as pentatonic (*auḍuva*). (55-57b)

The author is presenting here a semantic derivation of the two terms *ṣaḍava* and *auḍuva*, the former signifying a musical composition or a song composed with six notes and the latter with five notes. Both the names are derived from the numbers six and five, of which the former naturally holds good and the latter is obviously laboured and seems to be far-fetched. It is said that the word *auḍuva* (pentatonic) is finally derived from the word *uḍu*. The text of the verses 55-57b gives us this derivation in the following five stages; worked backwards :

- (i) The word derived is.....*auḍuva* (pentatonic).
- (ii) *Auḍuva* (pentatonic) is a group of five notes belonging to a song which is made pentatonic (*auḍuvita*).
- (iii) *Auḍuvita* is the name of that song which is qualified by the number five (*auḍuvi*).
- (iv) *Auḍuvi* (the number five) is derived from *uḍuvam* (sky) because it is the fifth of the five great elements.
- (v) *Uḍuvam* (sky) is so named because it is the dwelling place of *uḍu-s* (stars). (55-57b)

Hexatonic and pentatonic forms of *jāti-s* are formed by eliminating one or two notes respectively; but these forms are possible of those *jāti-s* that are capable of being modified through incompleteness, and most of these *jāti-s* therefore necessarily have three forms, viz. complete, hexatonic and pentatonic. Here, the author says that the notes, which by being eliminated from the complete forms become the cause of the

3. That is, if counted in the order of dissolution, viz. earth, water, fire, air and space; but they evolve in the reverse order.
4. From the fact that the sky is the fifth element.
5. The five notes called pentatones.
6. Literally, in a song.
7. Combination of five notes seems to be implied.
8. 'S' says, "Known to Bharata and his successors."

In the state of completeness, the notes causing hexatones⁹ and pentatones¹⁰ respectively become rarer¹¹ and rarer¹², while it is the reverse with *pañcamī*. (57c-58b)

Rareness and profusion not being obtained (in the ordinary course) the statement (obtaining them) forms a specific rule (*vidhi*). In case of two (possibilities) obtaining, the pre-eminence of one is by exclusive specification (*parisaṅkhyā*). (58c-59b).

hexatonic and pentatonic formations, in the state of completeness (while they are not being eliminated), are respectively employed rarely and very rarely, i. e. those that are the makers of hexatonic forms (*ṣaḍlava-kārti*) are characterised by rareness and those that are the makers of pentatonic forms (*auḍuvakārti*) are characterised by greater rareness. But in the case of *pañcamī jāti* this rule is applied in reverse order, the pentatone-makers being rare and the hexatone-makers being rarer. (57c-58b).

It has been stated (just before this) that with regard to rareness in the state of completeness of *jāti-s* the ordinary rule is applicable to *pañcamī* in the reverse order. The question is why such a transgression of the rule is permitted. The simple answer to it is that it is ordained by a rule, which is framed by ancient authorities. However, the author explains this exception in the light of relationship obtaining between the concepts *vidhi* (rule) and *parisaṅkhyā* (exclusive specification) as found in the *Mīmāṃsā* system of Indian Philosophy. In order to understand the real import of the text one has to be clear about these two concepts as applied to the situation obtaining with reference to the provision of rareness and profusion in the *pañcamī jāti*.

Vidhi means a rule or a precept that enjoins something for the first time, while *parisaṅkhyā* means such specification that acts as a limitation to what is expressly mentioned.

“Let one offer twilight worship in the morning” is a religious injunction cited as an example of *vidhi* by ‘K’. One cannot by any means know whether one should or should not perform a religious ceremony except by the injunction of a sacred book. The point is that the rule is laid down for a certain observance by an unquestionable authority.

9. *Ṣaḍlava*.

10. *Auḍuva*.

11 & 12. ‘K’ interprets *alpa* and *alpatara* respectively as *anabhyāsa* (non-repetition) and *langhana* (overstepping).

‘K. R.’ cites an example for *parisaṅkhyā* (exclusive specification) in the statement: “the five-clawed (animals) may be eaten.” Eating of meat is known by experience. This statement gives a preference to the meat of five-clawed animals. It results in prohibition of the meat of animals other than the five clawed ones.

The structure of *pañcamī* is described subsequently (verse 73-75b) wherein it is said that *sa*, *ga* and *ma* are rare notes in it; and the hexatonic and pentatonic forms are respectively caused by the elimination of *ga*, and *ni* and *ga*. So ordinarily *ni* and *ga* being the makers of hexatonic and pentatonic forms, should, in the state of completeness, respectively be rare and rarer. Thus, of the notes that are declared to be rare, viz. *sa*, *ga*, *ma*, the first and the last, viz. *sa* and *ma* are not obtained in the usual process; they are given as a rule (*vidhi*). On the other hand, *niṣāda* is declared to be one of the semifinal notes by Bharata (as quoted by ‘K’ in his commentary) and therefore to be taken profusely. So we have a contradiction in so far as the same note (*niṣāda* in this case) cannot in the same *jāti* be a rare as well as a frequent note. This contradiction, as observed by ‘K’ is sought to be removed through the distinction made between *vidhi* and *parisaṅkhyā*. Both *ga* and *ni* are given as rare notes (in the state of completeness), so in order to bring the rareness of *ga* into prominence, that of *ni* is discarded; and this is *parisaṅkhyā*.

ग. जातीनां विशेषलक्षणानि

अथ प्रत्येकमेतासां जातीनां लक्ष्म कथ्यते ॥५९॥

1. षाड्जी जातिः

षाड्ज्यामंशाः स्वराः पञ्च निषादर्वभर्जिताः ।

निलोपात्षाडवं सो ऽत्र पूर्णत्वे काकली क्वचित् ॥६०॥

सगयोः सधयोश्चात्र संगतिर्बहुलस्तु गः ।

गान्धारे ऽंशे न नेलोपो मूर्च्छना धैवतादिका ॥६१॥

त्रिधा तालः पञ्चपाणिरत्र चैककलाऽऽदिकः ।

क्रमान्मार्गाश्चित्रवृत्तिदक्षिणा, गीतयः पुनः ॥६२॥

मागधी संभाविता च पृथुलेति क्रमादिमाः ।

नेष्कामिकध्रुवायां च प्रथमे प्रेक्षणे स्मृतः ॥६३॥

विनियोगो, द्वादशात्र कला अष्टलघुः कला ।

अस्यां षाड्ज्यां षड्जो न्यासः । गान्धारपञ्चमावपन्यासौ ।
वराटो दृश्यते । अस्याः प्रस्तारः—

१. षाड्जो

| | | | | | | | | |
|-----|-----|-----|------|------|-----|-----|-----|-----|
| १. | सा | सा | सा | सा | पा | निध | पा | धनि |
| | तं | | भ | व | ल | ला | | ट |
| २. | रो | गम | गा | गा | सा | रिग | धस | धा |
| | न | य | नां | | बु | जा | | धि |
| ३. | रिग | सा | रो | गा | सा | सा | सा | सा |
| | कं | | | | | | | |
| ४. | धा | धा | नो | निसं | निध | पा | सां | सां |
| | न | ग | सू | | नु | प्र | ण | य |
| ५. | नो | धा | पा | धनि | रो | गा | सा | गा |
| | के | | लि | स | मु | | | द्भ |
| ६. | सा | धां | धनिं | पां | सा | सा | सा | सा |
| | वं | | | | | | | |
| ७. | सा | सा | गा | सा | मा | पा | मा | मा |
| | स | र | स | कृ | त | ति | ल | क |
| ८. | सा | गा | मा | धनि | निध | पा | गा | रिग |
| | पं | | | का | नु | ले | प | |
| ९. | गा | गा | गा | गा | सा | सा | सा | सा |
| | नं | | | | | | | |
| १०. | धां | सा | रो | गरि | सा | मा | मा | मा |
| | प्र | ण | मा | | मि | का | | म |
| ११. | धा | नो | पा | धनि | रो | गा | रो | सा |
| | दे | | हं | ध | ना | न | | |
| १२. | रिग | सा | रो | गा | सा | सा | सा | सा |
| | लं | | | | | | | |

[तत्र साकल्येन पदयोजना]

[तं भवललाटनयनाम्बुजाधिकं नगसूनुप्रणयकेलिसमुद्भवम् ।
सरसकृततिलकपङ्कानुलेपनं प्रणमामि कामदेहेन्धनानलम् ॥]

C. The characteristic features of the particular *jāti-s*: 59c-109

Now the characteristic features of each of these (*jāti-s*) are described. (59cd)

(i) *Ṣaḍjī*: (60-64)

In *ṣaḍjī* there are five¹ fundamental notes leaving aside *niṣāda* and *ṣaḍbha*. The hexatone is (formed) by the elimination of *ni*, which in the state of its being complete sometimes becomes *kākalī*. *Sa* and *ga* and *sa* and *dha* are in concert (*saṅgati*); *ga* is profuse. In the event of *gāndhāra* being the fundamental note *ni* cannot be eliminated, (its) *mūrcchanā* commences with *dhaivata*. Here, the *tāla* (beat-cycle) is threefold *pañcapāṇi* which as *ekakala* and so on² is respectively³ set in the *citra*, *vṛṭṭi*⁴ and *dakṣiṇi mārga-s* (span) and again in *māgadhi*, *sambhāvitā* and *pythulā gīti-s* in due order.⁵ Its proper application (*viniyoga*) is known to be in the *naiṣkrāmikī dhruvā*⁶

1. These are *sa*, *ga*, *ma*, *pa*, *dha*.

2. Here, in *ṣaḍjī*, the *tāla* is *pañcapāṇi* (*ṣaḍ-pitāputraka*) which is threefold, viz. *ekakala*, *dvikala* and *catuṣkala*. These are defined in Chapter V.

3. That is, in the *ekakala pañcapāṇi* the *mārga* to be adopted is *citra*, in *dvikala*, *vṛṭṭi* and in *catuṣkala*, *dakṣiṇa mārga*.

4. *Vartika* is another name given to it.

5. That is, *ekakala*, *dvikala* and *catuṣkala* respectively are in *māgadhi*, *sambhāvitā* and *pythulā gīti-s*.

6. It is the song of *naiṣkrāmikī dhruvā*, as composed after the melodic pattern set in the *ṣaḍjī jāti* which is employed in the the first act of a drama *Dhruvā* is a name for a particular class of songs sung in dramatic performances. These are of five types, viz. *prāveśikī*, *akṣepikī*, *prāsādikī*, *antarā* and *naiṣkrāmikī* which are used in different junctures from a technical point of view.

in the first act (of a drama). There are twelve *kalā-s*⁷ of eight *laghu-s*⁸ (shorts) each. (60-64b)

In this *śāḍjī* the final note is *śāḍja*, the semifinal notes are *gāndhāra* and *pañcama* and *varāḍī* is seen (through it). Its *prastāra*⁹ (elaboration) follows :

| | | | | | | | | |
|-----|------------|-----------|------------|------------|-----------|------------|-----------|-------------|
| 1. | sā | sā | sā | sā | pā | ni-dha | pā | dha-ni |
| | <i>Tam</i> | | <i>bha</i> | <i>va</i> | <i>la</i> | <i>la</i> | | <i>ṭa</i> |
| 2. | rī | ga-ma | gā | gā | sā | ri-ga | dha-sa | dhā |
| | <i>na</i> | <i>ya</i> | <i>nām</i> | | <i>bu</i> | <i>ja</i> | | <i>dhi</i> |
| 3. | ri-ga | sā | rī | gā | sā | sā | sā | sā |
| | <i>kam</i> | | | | | | | |
| 4. | dhā | dhā | nī | ni-sa | ni-dha | pā | sā | sā |
| | <i>na</i> | <i>ga</i> | <i>sū</i> | | <i>nu</i> | <i>pra</i> | <i>ṇa</i> | <i>ya</i> |
| 5. | nī | dhā | pā | dha-ni | rī | gā | sā | gā |
| | <i>ke</i> | | <i>li</i> | <i>sa</i> | | <i>mu</i> | | <i>dbha</i> |
| 6. | sā | dhā | dha-ni | dha-pā | sā | sā | sā | sā |
| | <i>vam</i> | | | | | | | |
| 7. | sā | sā | gā | sā | mā | pā | mā | mā |
| | <i>Sa</i> | <i>ra</i> | <i>sa</i> | <i>ka</i> | <i>ta</i> | <i>ti</i> | <i>la</i> | <i>ka</i> |
| 8. | sā | gā | mā | dha-ni | ni-dha | pā | gā | ri-ga |
| | <i>pañ</i> | | | <i>ka</i> | <i>nu</i> | <i>le</i> | <i>pa</i> | |
| 9. | gā | gā | gā | sā | sā | sā | sā | sā |
| | <i>nam</i> | | | | | | | |
| 10. | dhā | sā | rī | ga-ri | sā | mā | mā | mā |
| | <i>pra</i> | <i>ṭa</i> | <i>mā</i> | | <i>mi</i> | <i>ka</i> | | <i>ma</i> |
| 11. | dha | nī | pā | dha-ni | rī | gā | rī | sā |
| | <i>de</i> | | <i>hen</i> | <i>dha</i> | | <i>na</i> | <i>na</i> | |
| 12. | ri-ga | sā | rī | gā | sā | sā | sā | sā |
| | <i>lam</i> | | | | | | | |

7. *Kalā* is understood by Nijenhuis as 'variable time unit' which brings out the idea so well, but it being a phrase, she has not herself used it as an equivalent term. Here it seems to imply a phrase, a tonal sector structured upon a verbal unit in a definite time space.
8. 'K' points out that in the context of *tāla*, *laghu* is the measure of time taken to pronounce five short syllables. And eight such *laghu-s* constitute one *kalā*. Thus the *kalā* spoken of here pertains to *dakṣiṇa mārḡa* as the author himself says in verse subsequently. 'S' reads eight *guru-s* (longs) in place of eight *laghu-s*. 'K' elucidates that the prescribed form of *tāla* is *cauṣkālā*. In the *Vārtika mārḡa*, i. e. in *dvikālā* form it will have twentyfour *kalā-s* of four *laghu-s* each, while in the *citra mārḡa*, i. e. the *ekakālā* form it will have fortyeight *kalā-s* of two *laghu-s* each (See 'K' on 111 cd. and 112 ab).
9. It has not been possible to give signs for *tāra-mandra* in the notations reproduced in the Roman script.

The author now describes (from verse 60 109) the distinguishing features of each of the eighteen *jātī-s* separately. It would be observed from the above description that the *jātī* songs in various forms constituted a part and parcel of the dramatic episodes and their technique of presentation and contributed in terms of musical effect to the creation of aesthetic delight (*rāsa*). This explains their relation to *rāsa* and also presents the perspective in which the *jātī*-songs must be viewed.

It is notable that Śārṅgadeva, in addition to the *jātī-lakṣaṇa-s* (characteristic features of *jātī-s*) also invariably mentions the commencement of the *mūrccanā* as an added essential feature. In Bharata's system it was understood that the fundamental note which is also the initial note would be the commencing note of the *mūrccanā*. So, in a way Śārṅgadeva is recording a departure from that notion, and it seems that it is based on Mātāṅga's twelve-tone (*dvadāśa-svārā*) *mūrccanā-s*, a concept brought into being by such ancient authorities as Kōhala and Nandikeśvara (as quoted by him vide Br. D. p. 32) and elaborated by him. As each *jātī* has more than one fundamental note (as capable of being used), Bharata's system of seven-tone (*sapta svārā*) *mūrccana-s* (also otherwise spoken of by Mātāṅga) could easily be worked on stringed instruments of the harp type, that had as many as twentyone strings, but it was not suited to the fretted instruments of the lute type with fixed note positions. It is conjectured that when such instruments appeared during the times of Mātāṅga and others, it was found difficult to work out the seven-tone *mūrccana-s* on them, since every time the fundamental note of a *jātī* was changed it required a different tuning of the instruments. Therefore a system comprising notes of three registers such as two of the lower, seven of the middle and three of the higher was invented to obviate this difficulty and to obtain the structure of a *rāga* or a *bhāsa*, etc. within the range of twelve notes. So the very purpose of *mūrccanā* was extended to include the comprehension of the tonal structure (outline) of a *rāga* and so on (see S. *Chintāmani*, p. 66).

However Kallinātha seems to have identified the seven-tone *mūrccanā-s* of Bharata with the twelve-tone *mūrccanā-s* of Mātāṅga quietly accepted in this context by Śārṅgadeva, without mentioning them as such anywhere else. But such an identification is obviously erroneous. The expression *dhaivatādi* of the text (i. e. commencing with *dhaivatā*) is borrowed from Mātāṅga and refers to the twelve-tone *mūrccanā-s* innovated by him. The twelve-tone *mūrccanā-s* of Mātāṅga are illustrated as under :

Ṣadja-grāma

1. dha ni sa ri ga ma pa dha ni sa ri ga
2. ni sa ri ga ma pa dha ni sa ri ga ma
3. sa ri ga ma pa dha ni sa ri ga ma pa
4. ri ga ma pa dha ni sa ri ga ma pa dha
5. ga ma pa dha ni sa ri ga ma pa dha ni
6. ma pa dha ni sa ri ga ma pa dha ni sa
7. pa dha ni sa ri ga ma pa dha ni sa ri

Madhyama-grāma

1. ni sa ri ga ma pa dha ni sa ri ga ma
2. sa ri ga ma pa dha ni sa ri ga ma pa
3. ri ga ma pa dha ni sa ri ga ma pa dha
4. ga ma pa dha ni sa ri ga ma pa dha ni
5. ma pa dha ni sa ri ga ma pa dha ni sa
6. pa dha ni sa ri ga ma pa dha ni sa ri
7. dha ni sa ri ga ma pa dha ni sa ri ga

(Cf. Brihaspati : *Dharata kā Sangīta Siddhanta* 1959, pp. 51, 52)

It will be noticed that, whereas the seven-tone *mūrccanā-s* are formed in descending order, these twelve-tone *mūrccanā-s* are formed in ascending order in succession. Our comments on S. R. I. 49 may also be referred to in this context. However, the concept of twelve-tone *mūrccanā-s* is a significant development in the history of Indian music, since it is linked with the advent of fretted stringed instruments. But it may also be noted that it was not able to hold ground for long and was later abandoned by such writers as Kumbha. Even Śārṅgadeva did not find it necessary to expound it.

Technical terms with regard to the practice of *Tāla* will be dealt with adequately in chapter V entitled *Taladhya*. (60 64b)

With respect to the final note in the *ṣadji*, 'K' elaborates the idea: "in the modified form of *ṣadji* despite the non-applicability of the rule (of *suddhata*) with regard to the initial note and so on, the denominative note is the final note in the *suddhā* as well as the modified forms." However, the statement of the text that, *gāndhāra* and *pañcama* are the semifinal notes, applies to its modified forms only, since in the *suddhā* state it is *ṣadja*, the denominative note, that has to be the semifinal note.

The expression *varāṭī dṛśyate* suggests, according to 'K', that at places *ṣadji* appears to be *varāṭī* (*rāga*) and he says it happens when *kākalī* is employed in the modified form (of *ṣadji*).

Prastāra, in this context is defined by 'K' as "the arrangement of notes in the (different) *kalā-s*". The *prastāra* given here pertains to the scale of standard notes in the *ṣadja-grāma*. There are, as already pointed out, twelve *kalā-s* with eight *laghu-s* each. Single notes are written with a long vowel and more than one notes with a short vowel are put together, with the same time-value. The lower register is indicated in the text by a dot (·) above and the higher register by a vertical stroke (|) above. The couplet (or the verse) represents the literary composition, the text of the song and is said to be composed by Brahmā with its syllables set to the tones distributed in the *kalā-s* as indicated. The purport of the verse is as under :

Obeisance to that extra eye-lotus in the forehead of Lord Śiva, the product of the amorous sport of Pārvatī, the bearer of the ointment of the moist paste of unguents of the *tilaka* mark and the fire of the fuel of the cupid's body.

The number of notes used in it, counted from the point of view of assessing their relative profusion or rarity, is as under:

| | | | | | |
|----------|---|----|----------|---|-------------|
| Ṣadja | — | 36 | Pañcama | — | 8 |
| Rṣabha | — | 12 | Dhāivata | — | 16 |
| Gāndhāra | — | 20 | Niṣāda | — | 12 |
| Madhyama | — | 8 | | | |
| | | | | | Total : 112 |
| | | | | | _____ |

This is the *prastāra* of *ṣadji* with *ṣadja* for its fundamental note. The *rāsa* or the aesthetic delight in all the *jātī-s* is declared to be in accordance with the fundamental note. Other *prastāra-s* of *ṣadji* with *gāndhāra* etc. as its fundamental notes are similarly to be conceived on this pattern.

2. आर्षभी जातिः

आर्षभ्यां तु त्रयो ऽंशाः स्युर्निषादर्षभधैवताः ॥६४॥

द्विश्रुत्योः संगतिः शेषलङ्घनं पञ्चमस्य च ।

षाडवं षड्जलोपेन सपलोपादिहौडुवम् ॥६५॥

मूर्च्छना पञ्चमादिश्च तालश्चत्पुटो मतः ।

अष्टौ कला भवन्तीह विनियोगस्तु पूर्ववत् ॥६६॥

अस्यामार्षभ्यामृषभो न्यासः । अंशा एवापन्यासाः । देशोमधुकयो
दृश्येते । अस्याः प्रस्तारः—

२. आर्षभो

१. री गा सा रिग मा रिम गा रिरि
गु ण लो च ना धि

२. री री निध निध गा रिम मा पनि
क म न न्त म म र

३. मा धा नी धा पा पा सा गा
म ज र म क्ष य

४. नी धनि री गरि सधं गरि री री
म जे यं

५. री मा गरि सधं सस रि रिग मम
प्र ण मा मि दिव्य

६. निध पा री री रिप गरि सधं सा
म णि द पं णा म

७. रिस रिस रिग रिग मा मा मा गरि
ल नि के तं

८. पा नि री मा गरि सधं गरि गरि
भ व म मे यं

[तत्र साकल्येन पदयोजना]

[गुणलोचनाधिकमनन्तममरमजरमक्षयमजेयम् ।
प्रणमामि दिव्यमणिदर्पणामलनिकेतं भवममेयम् ॥]

(ii) *Ārṣabhī* : 64c-66

In *ārṣabhī*, however¹, there are three fundamental notes,
viz. *niṣāda*, *dhaivata* and *ṛṣabha*; *gāndhāra* and *niṣāda* are in

1. The use of the indeclinable *tu*, as pointed out by 'K', distinguishes the order of *ārṣabhī* from that of *ṣāḍjī*.

concert² (*saṅgati*) with the rest (of the notes), and *pañcama* is to be overstepped³. The elimination of *ṣāḍja* (causes) the hexatonic (form) and that of *ṣāḍja* and *pañcama*, the pentatonic one; its *mūrccanā* commences with *pañcama* and *caccatpuṣa* is accepted as its *tāla*. It has eight *kalā-s* and its proper application is like that of *ṣāḍjī*⁴ (lit. as before) (64c-66).

In this⁵ *ārṣabhī* the final note is *ṛṣabha*, the fundamental notes⁶ are the semifinal notes, and *deśī* and *madhukarī* are seen (in it)⁷. Its *prastāra*⁸ :

| | | | | | | | | |
|----|--------|--------|--------|--------|--------|--------|--------|------------------|
| 1. | ri | gā | sā | ri-ga | mā | ri-ma | gā | ri-ri |
| | Gu | ṇa | lo | | ca | nu | | dhi ⁹ |
| 2. | ri | ri | ni-dha | ni-dha | ga | ri-ma | ma | pa-ni |
| | ka | ma | na | | nta | ma | ma | ra |
| 3. | mā | dhā | nī | dha | pā | pā | sā | gā |
| | mu | ja | ra | mu | | | kṣa | ya |
| 4. | nī | dha-ni | ri | ga-ri | sa-dha | ga-ri | ri | ri |
| | ma | je | | | | | yam | |
| 5. | ri | ma | ga-ri | sa-dha | sa-sa | ri-sa | ri-ga | ma-ma |
| | Pra | ṇu | mā | | | | mi | diya |
| 6. | ni-dha | pā | ri | ri | ri-pa | ga-ri | sa-dha | sā |
| | ma | ṇi | da | | rpa | ṣḍ | | ma |
| 7. | ri-sa | ri-sa | ri-ga | ri-ga | mā | mā | mā | ag-ri |
| | la | ni | ke | | | | tam | |
| 8. | pā | nī | ri | mā | ga-ri | sa-dha | ga-ri | ag-ri |
| | bha | va | ma | me | | | | yam |

- 'K' elucidates that each of them is separately in concert with the other notes.
- 'K' takes *laṅghana* in the sense of *alpatara*, 'being very rare' and 'S' takes it in the sense of *iṣat-sparśa* 'slight touch'. This is applicable only to its state of completeness.
- That is, in the *naiṣkramikī dhruvā*.
- The one that has been described above.
- That is, *niṣāda*, *ṛṣabha* and *dhaivata*.
- 'K' says *ārṣabhī* gives the impression of *deśī* and *madhukarī* when *ṛṣabha* is dominant.
- The number of different notes employed can be computed from the *prastāra*, and the *prastāra-s* oriented by other fundamental notes of *ārṣabhī* (i. e. *ni* and *dha*) can be worked out on the above pattern.

The purport of the text is as under :

Obeisance to Bhava (Śiva) having the three *guṇa-s* for his eyes, the endless, immortal, undecaying, indestructible and invincible, the pure abode of mirror-like divine jewels and the immeasurable (one).

'K' reads *adikam* instead of *adikam* ...

3. गान्धारी जातिः

पञ्चांशा रिधवर्ज्याः स्युर्गान्धार्या संगतिः पुनः ।

न्यासांशाभ्यां तदन्येषां धंवतादृषभं व्रजेत् ॥६७॥

रिलोपरिधलोपाभ्यां षाडवौडुविते क्रमात् ।

पञ्चमः षाडवद्वेषो निसमध्यमपञ्चमाः ॥६८॥

अंशा द्विषन्त्यौडुवितं कलाः षोडश कीर्तिताः ।

मूर्च्छना धंवतादिः स्यात्तालश्चत्पुटो मतः ॥६९॥

विनियोगो ध्रुवागाने तृतीयप्रेक्षणे भवेत् ।

अस्यां गान्धार्या गान्धारो न्यासः । पञ्जपञ्चभावपन्यासी ।

गान्धारपञ्चमदेशोवेलावत्यो दृश्यन्ते । अस्याः प्रस्तारः—

३. गान्धारी

१. गा गा सा नौ सा गा गा गा
ए तं

२. गा गम पा पा धप मा निध निसं
र ज नि व धू मुख

३. निध पनि मा मपरि गा गा गा गा
वि अ म दं

४. गा गम पा पा धप मा निध निसं
नि शा म य व रो रु

५. निध पनि मा मपरि मा गा मा सा
त व मुख विलास

६. गा सा गा गा गा गम गा गा
व पु श्रा रु म म ल

७. गा गम पा पा धप मा निध निसं
मृ दु कि र ण

८. निध पनि मा मपरि गा गा गा गा
म मृ त भ वं

९. री गा मा पध री गा सा सा
र ज त गि रि शि ख र

१०. नौ नौ नौ नौ नौ नौ नौ नौ
म णि श क ल शं ख

११. गा गम पा पा धप मा निध निसं
व र यु व ति दं त

१२. निध पनि मा मपरि गा गा गा गा
पं क्ति नि भं

१३. नौ नौ पा नौ गा मा गा सा
प्र ण मा मि प्र ण य

१४. गा सा गा गा गा गम गा गा
र ति क ल ह र व नु

१५. गा पा मा मा निध निसं निध पनि
दं

१६. मा परिग गा गा गा गा गा गा
श शि नं

[तत्र साकल्येन पदयोजना]

[एतं रजनिवधूमुखविभ्रमदं निशामय वरोह
भवमुखविलासवपुश्रा रुममलमृदुकिरणममृतभवम् ।

रजतगिरिशिखरमणिशकलशङ्खवरयुवतिदन्तपङ्क्तिनिभं
प्रणमामि प्रणयरतिकलहरवनुदं शशिनम् ॥]

(iii) *Gāndhārī* : 67-70b

Gāndhārī has fundamental notes¹ barring *ṛṣabha* and *dhaivata*, and its final and fundamental notes² are in concert (*saṅgati*) with the rest of the other notes. From *dhaivata* one should proceed to *ṛṣabha*.³ The hexatonic and the pentatonic (forms) are (caused) by the elimination of *ṛṣabha* and *dhaivata* respectively. *Pañcama* is incompatible⁴ with hexatonics and *niṣāda*, *ṣaḍja*, *madhyama* and *pañcama* as fundamental notes are not conducive to pentatonic formations. (Its) *kalā-s* are said to be sixteen, (its) *mūrcchanā* commences with *dhaivata* and the *tāla* is accepted to be *caccatpuṭa*. (Its) proper application is in the *dhruvā* songs of the third act. (67-70b)

In this *gāndhārī*, *gāndhāra* is the final note, *ṣaḍja* and *pañcama* are the two semifinal notes, *gāndhāra-pañcama*⁵, *deśī* and *velāvalī* are seen.⁶ Its *prastāra*⁷ :

1. That is, *sa, ga, ma, pa, ni*.
2. *Gāndhāra* is its final note; so, *ga* or *sa, ga, ma, pa, ni* when any of them is the fundamental note, these two notes are in concert with notes other than these two.
3. 'K' infers from this rule that perhaps in the state of completeness of *gāndhārī*, *ṛṣabha* and *dhaivata* may be in concert.
4. 'K' here, comments : "when *pañcama* is the fundamental note, *gāndhārī* is naturally complete, i. e. no other forms are possible with *ni, sa* and *ma* as the fundamental notes; and hence it is only when *gāndhāra* is the fundamental note that all the three formations, viz. complete, hexatonic and pentatonic are possible."
5. 'K. R.' rightly points out that, "this is a *madhyama-grāma jātī*. In the *madhyama-grāma pa* has *ri* as its *saṁvādi* (consonant), and in this *jātī*, the *aḍava* is by dropping *ri*. But *saṁvādi* (consonant) shall not be dropped. So there is no *ṣāda* when *pa* is the *amśa*. For the same reason, when *pa* is *amśa* there can be no *auḷava* (pentatone) which is effected by dropping *ri* and *dha*. As for there being no *auḷava* when the other *svāra-s* are *amśa-s* it is based on the words of Bharata." (S. R. Vol. I, Chap. I. p. 104). This observation is based on Kallinātha's comments.
6. *Gāndhāra-pañcama* is a *grāma-rāga*.
7. That is, they partly appear.
8. This represents the *prastāra* of *gāndhārī* with *gāndhāra* as its fundamental note.

The purport of the verse is as under :

| | | | | | | | | |
|-----|--|---------------------------|-------------------------|--------------------------------|-----------------------------|---------------------------|----------------------------|----------------------------|
| 1. | <i>gā</i> <i>E</i> | <i>gā</i> | <i>sā</i> | <i>nī</i> | <i>sā</i> <i>taṁ</i> | <i>gā</i> | <i>gā</i> | <i>gā</i> |
| 2. | <i>gā</i> <i>ra</i> | <i>ga-ma</i> <i>ja</i> | <i>pā</i> <i>ni</i> | <i>pā</i> <i>va</i> | <i>dha-pa</i> <i>dhū</i> | <i>mā</i> | <i>ni-dha</i> <i>mu</i> | <i>ni-sa</i> <i>kha</i> |
| 3. | <i>ni-dha</i> <i>vi</i> | <i>pa-ni</i> | <i>mā</i> | <i>ma-pa-ri</i> <i>bhra</i> | <i>gā</i> <i>ma</i> | <i>gā</i> <i>dam</i> | <i>mā</i> | <i>gā</i> |
| 4. | <i>gā</i> <i>ni</i> | <i>ga-ma</i> <i>śa</i> | <i>pā</i> <i>ma</i> | <i>pā</i> <i>ya</i> | <i>dha-pa</i> <i>va</i> | <i>mā</i> <i>ro</i> | <i>ni-dha</i> | <i>ni-sa</i> <i>ru</i> |
| 5. | <i>ni-dha</i> <i>bha</i> ⁸ | <i>pa-ni</i> <i>va</i> | <i>mā</i> <i>mu</i> | <i>ma-pa-ri</i> <i>kha</i> | <i>mā</i> <i>vi</i> | <i>gā</i> <i>lā</i> | <i>mā</i> | <i>sā</i> <i>sa</i> |
| 6. | <i>gā</i> <i>va</i> | <i>sā</i> <i>pu</i> | <i>gā</i> <i>śca</i> | <i>gā</i> <i>ru</i> | <i>gā</i> | <i>ga-ma</i> <i>ma</i> | <i>gā</i> <i>ma</i> | <i>gā</i> <i>la</i> |
| 7. | <i>gā</i> <i>mṛ</i> | <i>ga-ma</i> <i>du</i> | <i>pā</i> <i>ki</i> | <i>pā</i> <i>ra</i> | <i>dha-pa</i> <i>ṇa</i> | <i>mā</i> | <i>ni-dha</i> | <i>ni-sa</i> |
| 8. | <i>ni-dha</i> <i>ma</i> | <i>pa-ni</i> <i>mṛ</i> | <i>mā</i> <i>ta</i> | <i>ma-pa-ri</i> <i>bha</i> | <i>gā</i> <i>vam</i> | <i>gā</i> | <i>gā</i> | <i>gā</i> |
| 9. | <i>rī</i> <i>Ra</i> | <i>gā</i> <i>ja</i> | <i>mā</i> <i>ta</i> | <i>pa-dha</i> <i>gi</i> | <i>rī</i> <i>ri</i> | <i>gā</i> <i>śi</i> | <i>sā</i> <i>kha</i> | <i>sā</i> <i>ra</i> |
| 10. | <i>ni</i> <i>ma</i> | <i>ni</i> <i>ṇi</i> | <i>ni</i> <i>śa</i> | <i>ni</i> <i>ka</i> | <i>ni</i> <i>la</i> | <i>ni</i> <i>śain</i> | <i>ni</i> | <i>ni</i> <i>kha</i> |

Listen, O maiden with beautiful thighs!* I bow down to this moon which presents as it were the illusion of being the face of the night appearing as a bride, which is beautiful on account of its being the embodiment of the lustre of Śiva's face, which emits pure and soothing rays, which is the source of nectar, which (shines) like the crystals of the crest of a silver mountain, a conch-shell and a streak of (pearl) teeth of a beautiful damsel, and which enhances (the charm of) the noise of sportive amorous quarrels.

8. The Adyar ed. of S. R. as well as 'K' read *tava mukha* (meaning 'your face') but S. Raj reads it as *Bhavamukha*, i. e. Śiva's face. This has been taken as an error of the scribe and the reading *bhavamukha* has been adopted in our text for that is more cogent.

* Comp. S. Raj (Vol. I, p. 211) which reads *niśātamo-apanudam* (meaning, 'the dispeller of the darkness of night') instead of *niśāmaya varoru* as printed in the Adyar ed. of S. R. and also followed by 'K'. The reading of S. Raj is definitely better and more befitting in the context of a prayer. Obviously both are deriving from a common source of tradition.

| | | | | | | | | |
|-----|---------------|---------------|-----------|----------------|--------------|-------------|----------|-------------|
| 11. | gā va | ga-ma ra | pā yu | pā va | dha-pa ti | mā dan | ni-dha | ni-sa ta |
| 12. | ni-dha pañ | pa-ni | mā kti | ma-pa-ri ni | gā bham | gā | gā | gā |
| 13. | ni pra | ni ṇa | pā mā | ni | gā mi | mā pra | gā ṇa | sā ya |
| 14. | gā ra | sā ti | gā ka | gā la | gā ha | ga-ma ra | gā va | gā nu |
| 15. | gā dam | pā | mā | mā | ni-dha | ni-sa | ni-dha | pa-ni |
| 16. | mā śa | pa-ri-a śi | gā | gā | gā nam | gā | gā | gā |

4. मध्यमा जातिः

पञ्चांशा मध्यमायां स्युरगान्धारनिषादकाः ॥७०॥

षड्जमध्यमबाहुल्यं गान्धारो ऽल्पो ऽत्र षाडवम् ।

गलोपाग्निलोपेन त्वौडुवं स्यात्कलाऽष्टकम् ॥७१॥

ऋषभादिर्मूर्च्छना स्यात्तालश्चत्पुटो मतः ।

विनियोगो ध्रुवागाने द्वितीयप्रेक्षणे भवेत् ॥७२॥

अस्यां मध्यमायां मध्यमो न्यासः । अंशा एवापन्यासाः ।

चोक्षषाडवदेश्यान्धाल्यो दृश्यन्ते । अस्याः प्रस्तारः—

४. मध्यमा

१. मा मा मा मा पा धनि नी धप

पा तु भ व मू

२. मा पम मा सा मा गा री री

र्धं जा न न

३. पा मा रिम गम मा मा मा मा

कि रो ट

४. मां निध निसं निध पम पध मा मा

म णि व र्ण णं

५. नीं नीं री री नीं री री पा

गौ री क र प

६. नीं मप मा मा सा सा सा सा

ल्ल वां गु लि सु

७. गं नी सां गा धप मा धनि सां

ते जि तं

८. पा सां पा निधप मा मा मा मा

सु कि र णं

[तत्र साकल्येन पदयोजना]

[पातु भवमूर्धजाननकिरोटमणिदर्पणम् ।

गौरीकरपल्लवाङ्गुलिसुतेजितं सुकिरणम् ॥४॥]

(iv) *Madhyamā*: (70c-72)

There are five¹ fundamental notes in *madhyamā* excluding *gāndhāra* and *niṣāda*; *ṣaḍja* and *madhyama* are profuse, *gāndhāra* is rare,² hexatone is (caused) by the elimination of *gāndhāra* and pentatone by that of *niṣāda* and *gāndhāra* in it; it has eight *kalā-s*, (its) *mūrccchanā* commences with *ṛṣabha* and the *tāla* is accepted to be *caccatpuṭa*. (Its) proper application is in the *dhruvā* song of the second act. (70c-72)

In this *madhyamā*, *madhyama* is the final note, the very fundamental notes³ are the semifinal notes, and *coḷṣaṣṭḍava*⁴, *deśī* and *andhālī* are seen.

1. That is, *sa*, *ri*, *ma*, *pa*, *dha* by discretion.

2. This obviously applies to the complete forms.

3. That is, *sa*, *ri*, *ma*, *pa*, *dha*.

4. 'K' identifies it with *śuddha-ṣaḍava* which is a *grāma-rāga*.

Its *prastāra*⁶ :

| | | | | | | | | |
|----|------------|--------------|-------------|-----------|--------------|--------------|--------------|-----------|
| 1. | mā Pa | mā | mā | mā | pā bha | dha-ni va | ni mā | dha-pa |
| 2. | mā rdha | pa-ma jā | mā | sā na | mā na | gā | ri | ri |
| 3. | pā ki | mā rī | ri-ma ta | ga-ma | mā | mā | mā | mā |
| 4. | mā ma | ni-dha ni | ni-sa da | ni-dha | pa-ma rpa | pa-dha | mā nam | mā |
| 5. | ni Gau | ni | ri rī | ri | ni ka | ri ra | ri pa | pā |
| 6. | ni lla | ma-pa vañ | mā | mā | sā gu | sā li | sā su | sā |
| 7. | gā le | ni | sā | gā | dha-pa | mā | dha-ni ji | sa tam |
| 8. | pa su | sā ki | pā ra | ni-dha-pa | mā nam | mā | mā | mā |

5. पञ्चमी जातिः

रिपावंशौ तु पञ्चम्यां सगमाः स्वल्पका मताः ।

रिमयोः संगतिर्गच्छेत्पूर्णत्वे गान्निषादकम् ॥७३॥

क्रमाद्गेन निगाम्यां च षाड्वीडुवता मता ।

ऋषभो ऽशस्त्वौडुवितं द्वेष्टघष्टौ च कला मताः ॥७४॥

मूर्च्छनाऽऽदि तु पूर्वावत्रेक्षणं तु तृतीयकम् ।

5. The purport of the song is as under :

May the mirror of the crest jewel crowning the upper (fifth) face of Śiva*, the rays emanating from which are beautiful as they are stimulated by the fingers of the graceful hands of Gaurī, protect (us).

• Comp. S. Raj Vol. I, p. 214, which reads *Bhavamūrdhajanayanam* meaning "the upper (third) eye of Śiva".

अस्यां पञ्चम्यां पञ्चमो न्यासः । ऋषभपञ्चमनिषादा
अपन्यासाः । चोक्षपञ्चमदेश्यान्धाल्यो दृश्यन्ते । अस्याः प्रस्तारः—

५. पञ्चमी

१. पा धनि नी नी मा नी मा पा
ह रं मू र्धं जा न

२. गा गा सा सा मां मां पां पां
नं म हे श म म र

३. पां पां धां नीं नीं नी गा सा
प ति बा हु स्तं भ

४. पा मा धा नी निध पा पा पा
न म नं तं

५. पा पा री' री' री' री' री' री'
प्र ण मा मि पु रु ष

६. मां निग सा सध नी नीं नी नी
मु ख प घ ल क्ष्मी

७. सां सां सां मा पा पा पा पा
ह र मं बि का प

८. धा मा धा नी पा पा पा पा
ति म जे यं

[तत्र साकल्येन पदयोजना]

[हरं मूर्धजाननं महेशमरपतिबाहुस्तम्भनमनन्तम् ।
तं प्रणमामि पुरुषमुखपद्मलक्ष्मीहरमम्बिकापतिमजेयम् ॥]

(v) *Pañcamī* : (73-75b)

In *pañcamī*, *ṛṣabha* and *pañcama* are the two fundamental notes, *ṣaḍja*, *gāndhāra* and *madhyama* are considered to be very

rare¹, *ṛṣabha* and *madhyama* are in concert (*saṅgati*) and in case of completeness one may proceed from *gāndhāra* to *niṣāda*². The hexatonics and pentatonics³ are accepted to be (formed) by the respective elimination of *gāndhāra*, and *niṣāda* and *gāndhāra*. *Ṛṣabha* is not conducive to pentatonic formation when it is the fundamental note⁴, and eight *kalā-s* are accepted (in it). Its *mūrccchanā* etc. is like the previous one⁵, excepting that it is used in the third act. (73-75b)

In this *pañcamī*, the final note is *pañcama*; *ṛṣabha*, *pañcama* and *niṣāda* are the semifinal notes; and *cokṣapañcama*, *deśī* and *āndhālī* are seen.

Its *prastāra*⁶ :

| | | | | | | | | |
|----|-----|------------------|----|----|------|----|----|----|
| 1. | pā | dha-ni | nī | nī | mā | nī | mā | pā |
| | Ha | ram ⁷ | mū | | rdha | ja | | na |
| 2. | gā | gā | sā | sā | mā | mā | pā | pā |
| | nam | ma | he | | śa | ma | ma | ra |

1. This obviously applies to the complete formations.
2. 'K' infers that *ga* and *ni* should be brought in concert with each other and also that this should not be attempted in the hexatonic and the pentatonic forms because *ga* and *ni-ga* are respectively to be eliminated in them.
3. *Ṣāḍavauduvotā* is an abstract noun indicating the state of being hexatonic and pentatonic.
4. The pentatonic forms can be obtained by the elimination of *ga* and *ni*, so in the case of *ṛṣabha* being the fundamental note, even though there is no question of its consonant being omitted, yet by the authority of muni (Mataṅga ?), as quoted by 'K', pentatonic forms are not permitted.
5. That is, like that of *madhyamā*, i. e. commencing in *ṛṣabha*. By etc., is included the *caccatpūṣa tāla* and the *viniyoga*, i. e. its application in the *dhruvā* song.
6. The purport of the song is as under :—
Obeisance to that Śiva whose (fifth) face (emerges from) his (four) heads, the Lord of lords, the paralysing of the power of the chief of gods (Indra), the endless, the invincible, lord of Ambikā who robs Viṣṇu of the grace of his countenance*.
7. The *anusvāra* of *Haram* has been supplied to make the text more intelligible. The Adyar ed. of S. R. reads *Haramūrdhaja* etc.
- * Comp. Bh. Bhāṣya of Nānyadeva Chap. VI which reads *प्रणमामि पुरुषमहमलङ्कृतिभरं* etc. meaning "I bow to the Being that bears profuse ornamentation" etc. instead of *तं प्रणमामि पुरुषमुखपद्मसम्प्रीहं* etc.

| | | | | | | | | |
|----|-----|-------|-----|--------|--------|------|----|------|
| 3. | pā | pā | dhā | nī | nī | nī | gā | sā |
| | pa | ti | ba | | hu | stam | | bha |
| 4. | pā | mā | dhā | nī | ni-dha | pā | pā | pā |
| | na | ma | nan | | lam | | | |
| 5. | pā | pā | rī | rī | rī | rī | rī | rī |
| | pra | ṇa | mā | | mi | pu | ru | śa |
| 6. | mā | ni-ga | sā | sa-dha | nī | nī | nī | nī |
| | mu | kha | pa | dma | | la | | kṣmī |
| 7. | sā | sā | sā | mā | pā | pā | pā | pā |
| | ha | ra | mam | | bi | ka | | pa |
| 8. | dhā | mā | dhā | nī | pā | pā | pā | pā |
| | ti | ma | je | | yam | | | |

6. धैवती जातिः

स्तो धैवत्यां रिधावंशौ लङ्घचावारोहिणौ सपौ ॥७५॥

पलोपात्षाडवं प्रोक्तमौडुवं सपलोपतः ।

ऋषभादिमूर्च्छना स्यात्तालो मार्गश्च गीतयः ॥७६॥

विनियोगश्च षाड्जीवत्कला द्वादश कीर्तिताः ।

अस्यां धैवत्यां धैवतो न्यासः । ऋषभमध्यमधैवता अपन्यासाः ।

चोक्षकेशिकदेशीसिंहल्यो दृश्यन्ते । अस्याः प्रस्तारः—

६. धैवती

१. धा धा निध पध मा मा मा मा
त रु णा म लें डु

२. धा धा निध निसं सां सां सां सां
म णि भू षि ता म

३. सध धा पा मध धा निध धनि धा
ल शि रो जं

४. सा सा रिग रिग सा रिग सा सा
भु ज गा धि पै क

५. धां धां नीं पां धां पां मां मां
कुं ड ल वि ला स
६. धां धां पां मंघं धां निधं धंनि धां
कृ त शो भं
७. धा धा निसं निसं निध पा पा पा
न ग सू नु ल क्ष्मी
८. रिग सा सा सा नीं नीं नीं नीं
दे हा धं मि श्रि
९. सा रिग रिग सा नीं सा धां धां
त श री रं
१०. रीं गंरि मंघं मां मां मां मां मां
प्र ण मा मि भू त
११. नी नी धा धा पा रिग सा रिग
गो तो प हा र
१२. पा धा सा मा धा नो धा धा
प रि तु ष्टं

[तत्र सकल्येन पदयोजना]

[तरुणामलेन्दुमणिभूषितामलशिरोजं

भुजगाधिपेककुण्डलविलासकृतशोभम् ।

नगसुनुलक्ष्मीदेहार्धमिश्रितशरीरं

प्रणमामि भूतगीतोपहारपरितुष्टम् ॥]

(vi) *Dhaivatī* : (75c-77b)

In *dhaivatī*, *ṛṣabha* and *dhaivata* are the two fundamental notes, *ṣaḍja* and *pañcama* are to be overstepped, while in

ascent¹, hexatone is said to be by the elimination of *pañcama* and pentatone by that of *ṣaḍja* and *pañcama*; its *mūrccchanā* commences with *ṛṣabha* and its *tāla*, *mārga*, *gīti* and its proper application (*viniyoga*) are like those of *ṣaḍjī*². It is known to have twelve *kalā-s*. (75c-77b)

In this *dhaivatī*, the final note is *dhaivata*, the semifinal note is *dhaivata*, *ṛṣabha* and *madhyama*; and *cokṣakaisika*, *deśī* and *siṃhalī* are seen.

Its *prastāra*³ :

| | | | | | | | | |
|----|--------|-----|--------|--------|-----|--------|--------|-----------------|
| 1. | dhā | dhā | ni-dha | pa-dha | mā | mā | mā | mā |
| | Ta | ru | ṇā | | ma | len | | du |
| 2. | dhā | dhā | ni-dha | ni-sa | sā | sā | sā | sā ⁴ |
| | ma | ṇi | bhū | | śi | tā | | ma |
| 3. | sa-dha | dhā | pā | ma-dha | dhā | ni-dha | dha-ni | dhā |
| | la | śi | ro | | | | jam | |
| 4. | sā | sā | ri-ga | ri-ga | sā | ri-ga | sā | sā |
| | bhu | ja | gā | | dhi | pai | | ka |
| 5. | dhā | dhā | ni | pā | dhā | pā | mā | mā |
| | kuṇ | | ḍa | la | vi | tā | | sa |

1. 'K' interprets that *sa* and *pa* are to be overstepped in the ascending pattern of tonal movement and draws the implication that, the purport is that, "in the state of completeness they have to be very rare, and thus in descent they (*sa* and *pa*) have to be rare and not very rare."

2. That is, "*tāla* is threefold *pañcapāṇi*, which is *ekakala* etc, as respectively set in the *citra*, *vārtika* and *dakṣiṇa mārga-s* and also in *māgadhi*, *sambhāvitā* and *pṛthulā gīti-s* in due order. Its proper application is known to be in the *naiṣkramī dhruvā* in the first act."

3. The purport of the song is as under :

Obeisance to (the Ardhanaṛisvara, Śiva) whose glistening hair is decorated by the pure jewel of the new moon, who appears beautiful by the dangling of the lone ear-ring formed by the king of serpents (Śeṣa), whose body is conjoint half and half with the graceful frame of the daughter of the mountain (Pārvatī) and who is delighted by the presentation of songs by (his) devoted creatures.

4. Cf. Kallinātha S. R. vol. I, p. 218 as well as K. R., p. 140 who omit the *tāra* sign upon all the *sa-s* of this *kalā*. Two of the MSS. of S. Raj. agree with this reading (see S. Raj vol. I p. 199 f. n). These signs are given in the text.

| | | | | | | | | |
|-----|-------------|-------------|-------------|--------|--------------|-------------|-------------|-------------|
| 6. | dhā kṛ | dhā ta | pā śo | ma-dha | dhā bham | ni-dha | dha-ni | dha |
| 7. | dhā Na | dhā ga | ni-sa sū | ni-sa | ni-dha nu | pā la | pā | pā kṣmī |
| 8. | ri-ga de | sā hā | sā | sā | nī rdha | nī mi | nī | nī śri |
| 9. | sā ta | ri-ga śa | ri-ga rī | sā | nī | sā | dhā ram | dhā |
| 10. | ri pra | ga-ri ṇa | ma-ga mā | mā | mā mi | mā bhū | mā | mā ta |
| 11. | nī gī | nī | dhā to | dhā | pā pa | ri-ga hā | sā | ri-ga ra |
| 12. | pā pa | dhā ri | sā tu | mā | dhā | nī | dhā śtam | dhā |

7. नैषादी जातिः

नैषाद्यां निरिगा अंशा अनंशाबहुलाः स्मृताः ॥७७॥

षाड्वौडुवलङ्घ्याः स्युः पूर्वावद्विनियोजनम् ।

चच्चत्पुटः षोडशात्र कला गादिश्च मूर्च्छना ॥७८॥

अस्यां नैषाद्यां निषादो न्यासः । अंशा एवापन्यासाः । चोक्ष-
साधारितदेशीवेलावल्यो दृश्यन्ते । अस्याः प्रस्तारः—

७. नैषादी

१. नी नो नो नी सा धा नी नी
तं सुर वं दि त
२. पा मा सा धां नीं नीं नीं नीं
म हि ष म हा सुर
३. सा सा गा गा नी नी धा नी
म थ न मु मा प ति
४. सां सां धा नी नी नी नी नी
भो ग यु तं

५. सा सा गा गा मां मां मां मां
न ग सु त का मि नी
६. नीं पां धां पां मां मां मां मां
दि व्य वि शे ष क
७. रीं गां सां सां रीं गां नी नी
सू च क शु भ न ख
८. नी नी पा धनि नी नी नी नी
द र्प ण कं
९. सा सा गा सा मा मा मा मा
अ हि मु ख म णि ख चि
१०. मां मां मां मां नीं धां मां मां
तो ज्ज्व ल नू पु र
११. धा धा नी नो री गा मां मां
बा ल भु जं ग म
१२. मां मां पां धां नीं नीं नीं नीं
र व क लि तं
१३. पां पां नीं नीं री री री री
द्रु त म भि व्र जा मि
१४. री मा मा मा री गा सा सा
श र ण म नि दि त
१५. धा मा री गा सा धा नी नी
पा द यु ग पं क
१६. पां मां रीं गां नी नी नी नी
ज वि ला सं

[तत्र साकल्येन पदयोजना]

[तं सुरवन्दितमहिषमहाऽसुरमथनमुमापति भोगयुतं
नगसुतकामिनोदिव्यविशेषकसूचकशुभनखदर्पणकम् ।

अहिमुखमणिखचितोज्ज्वलनूपुरबालभुजंगमरवकलितं
द्रुतमभिव्रजामि शरणमनिन्दितपादयुगपङ्कजविलासम् ॥७॥]

(vii) *Naiṣādi* : (77c—78)

In *naiṣādi*, the fundamental notes are *niṣāda*, *ṛṣabha* and *gāndhāra* and the rest of the notes (lit. non-fundamental notes) are known (in it) to be weak¹ (lit. not profuse). The hexatone, the pentatone and the notes to be overstepped are like in the previous one², as also its proper application. (The *tāla*) is *caccatpuṣa*; it has sixteen *kalā-s* and its *mūrcchanā* begins with *gāndhāra*. (77c-78)

In this *naiṣādi*³, the final note is *niṣāda*, the very fundamental notes are the semifinal notes and *cokṣasādhārīta*, *deṣi* and *velāvalī* are seen.

1. The expression "*anaiṣābahulā*" of the text is interpreted in two different ways by the two commentators. 'S' reads it as "*anaiṣā + bahulā*" which means the non-fundamental notes, viz. *sa*, *ma*, *pa* and *dha* are profuse. But 'K' points out that this reading is in contradiction with the statement of Matāṅga—"in the state of completeness *sa*, *ma*, *pa* and *dha* are weak, in the hexatoness *sa*, *ma* and *dha* are weak and in the pentatoness *ma* and *dha* are weak" and also author's own statement—"the non-fundamental notes are not to be repeated." He therefore reads it as "*anaiṣā + abahulā*" which has been adopted in this translation. Both the readings are grammatically possible, but the latter seems to be technically more appropriate.
2. That is, the hexatone is by the elimination of *pañcama*, the pentatone by that of *ṣaḍja* and *pañcama*, *sa* and *pa* are the notes to be overstepped in the ascending movement; and its proper application is like that of *ṣaḍji*, i.e. in the *naiṣkrāmikā dhruva* of the first act.
3. *Naiṣādi* is the last of the seven *suddha jāti-s* described here. Their actual formation in practice has been demonstrated in so far as the arrangement of notes in different *kalā-s* set to a definite time-measure in a particular *tāla* etc. has been indicated. Their modified forms are not similarly illustrated but may be worked out on this pattern.

Its *prastāra*⁴ :

| | | | | | | | |
|-----|------------------|------------------|-------------------|----------------------|------------------|------------------|-------------------------------|
| 1. | ni <i>Tam</i> | ni <i>su</i> | ni <i>ra</i> | ni <i>van</i> | sā <i>dhā</i> | ni <i>di</i> | ni <i>tam</i> ⁵ |
| 2. | pā <i>ma</i> | mā <i>hi</i> | sā <i>ṣa</i> | dhā <i>ma</i> | ni <i>hā</i> | ni <i>su</i> | ni <i>ra</i> |
| 3. | sā <i>ma</i> | sā <i>tha</i> | gā <i>na</i> | gā <i>mu</i> | ni <i>mā</i> | ni <i>pa</i> | ni <i>tim</i> |
| 4. | sā <i>bho</i> | sā <i>ga</i> | dhā <i>ga</i> | ni <i>yu</i> | ni <i>tam</i> | ni <i>ni</i> | ni <i>ni</i> |
| 5. | sā <i>na</i> | sā <i>ga</i> | gā <i>su</i> | gā <i>ta</i> | mā <i>kā</i> | mā <i>mi</i> | mā <i>ni</i> |
| 6. | ni <i>di</i> | pā <i>ni</i> | dhā <i>ṛya</i> | pā <i>vi</i> | mā <i>śe</i> | mā <i>ṣa</i> | mā <i>ka</i> |
| 7. | ri <i>sū</i> | gā <i>ni</i> | sā <i>ca</i> | sa <i>ka</i> | ri <i>śu</i> | gā <i>bha</i> | ni <i>na</i> |
| 8. | ni <i>da</i> | ni <i>ni</i> | pā <i>rpa</i> | dha-ni <i>ṛya</i> | ni <i>kam</i> | ni <i>ni</i> | ni <i>ni</i> |
| 9. | sā <i>ā</i> | sā <i>hi</i> | gā <i>mu</i> | sā <i>khu</i> | mā <i>ma</i> | mā <i>ṛi</i> | mā <i>kha</i> |
| 10. | mā <i>to</i> | mā <i>ni</i> | mā <i>jva</i> | mā <i>la</i> | ni <i>nū</i> | dhā <i>pu</i> | mā <i>ra</i> |

4. The purport of the song is as under :

I hasten to take shelter in Him, who is adored by the gods, who vanquished the great demon Mahiṣa, who is the lord of Umā, who is associated with serpents*, who reflects in the mirror of his auspicious nails, the special mark of extraordinary excellence (*tilaka*) borne by the most beautiful maiden, the daughter of the mountain (Parvati), who puts on the young serpents that by their hissing sound like the anklets (as it were) shining with inlaid jewels (extracted from the mouths of snakes, and who is endowed with the grace of the praiseworthy lotus feet.

* Comp. S. Raj (Vol. I, p. 201) which reads उमापरिभोगयुतं meaning "associated with the enjoyment of Uma's company" instead of उमापति भोगयुतं of the Adyar ed. of S. R.

5. The *anusvāra* is supplied editorially to make an intelligible reading of the text which as per the Adyar ed. of S. R. reads as :

तं सुरवन्दितमहिषमहाऽसुरमथनमुमापति भोगयुतं etc.

| | | | | | | | | |
|-----|-----------|-----------|----------|-----------|-----------|------------|----------|----------|
| 11. | dha ba | dha la | nī | nī bhu | rī ja | gā ṅga | mā | mā ma |
| 12. | mā ra | mā va | pā ka | dhā li | nī | nī tam | nī | nī |
| 13. | pā dru | pā ta | nī ma | nī bhi | rī vra | rī jā | rī | rī mi |
| 14. | rī śa | mā ra | mā ṅa | mā ma | rī nin | gā | sā di | sā ta |
| 15. | dha pa | mā | rī da | gā yu | sā ga | dha paṅ | nī | nī ka |
| 16. | pā ja | mā vi | rī la | gā sam | nī | nī | nī | nī |

8. षड्जकैशिकी जातिः

अंशाः स्युः षड्जकैशिक्यां षड्जगान्धारपञ्चमाः ।

ऋषभे मध्यमे ऽल्पत्वं धनिषादौ मनाग्बहू ॥७९॥

चच्चत्पुटः षोडशास्यां कलाः स्युर्विनियोजनम् ।

प्रावेशिक्यां ध्रुवायां स्वात्प्रेक्षणे तु द्वितीयके ॥८०॥

अस्यां षड्जकैशिक्यां गान्धारो न्यासः । षड्जनिषादपञ्चमा

अपन्यासाः । प्रागुक्ता गान्धारपञ्चमहिन्दोलकदेशीवैलावत्यो दृश्यन्ते ।

अस्याः प्रस्तारः—

८. षड्जकैशिकी

१. सा सा मां पां गरि मग मा मा
दे

२. मा मा मा मा सां सां सां सां
वं

३. धा धा पा पा धा धा री रिम
अ स क ल श शि ति ल

४. री री नीं नीं नीं नीं नीं नीं
कं

५. धा धा पा धनि मा मा पा पा
द्वि र द ग ति

६. धा धा पा धनि धा धा पा पा
नि पु ण म ति

७. सा सा सा सा सा सा सा सा
मु ग्ध मु खां बु

८. धा धा पा धा धनि धा धा धा
रु ह दि व्य कां ति

९. सा सा सा रिग सा रिग धा धा
ह र मं बु दो द

१०. मा धा पा पा धा धा नी नी
धि नि ना दं

११. री री गा सा सां सां सां गां
अ च ल व र सू नु

१२. धां रिंसां रीं सरि रीं सां सां सां
दे हा धं मि धि

१३. सा सरि री सरि री सा सा सा
त श री रं

१४. मा मा मा मा निध पध मा मा
प्र ण मा मि तम हं

१५. नी नी पा पम पा पम पध रिग
अ नु प म मु ख क म

१६. गा गा गा गा गा गा गा गा
लं

[तत्र साकल्येन पदयोजना]

[देवमसकलशशितिलकं द्विरवर्गति
निपुणमति मुग्धमुखाम्बुरुहदिव्यकान्तिम् ।

हरमम्बुदोदधिनिनादमचलवरसूनुदेहार्धमिश्रितशरीरं
प्रणमामि तमहमनुपममुखकमलम् ॥]

(viii) *Ṣaḍjakaiṣiki* : (79-80)

In *ṣaḍjakaiṣiki*¹ the fundamental notes would be *ṣaḍja*, *gāndhāra* and *pañcama*; *ṛṣabha* and *madhyama* (will be) rare² and *dhaivata* and *niṣāda* somewhat³ profuse. *Caccatpuṣa* will be the *tāla* and there will be sixteen *kalā-s* in it; its proper application will be in the *prāveṣikī dhruvā* (song in the second act). (79-80)

In this *ṣaḍja-kaiṣiki*, *gāndhāra* is the final note, *ṣaḍja*, *niṣāda* and *pañcama* are the semifinal notes and *gāndhāra-pañcama*, *hiṇḍolaka*, *deśī*, *velāvalī*, mentioned before, are seen.

Its *prastāra*⁴ :

| | | | | | | | | |
|----|-----|----|----|----|-------|-------|----|----|
| 1. | sā | sā | mā | pā | ga-ri | ma-ga | mā | mā |
| | De | | | | | | | |
| 2. | mā | mā | mā | mā | sā | sā | sā | sā |
| | vam | | | | | | | |

1. *Ṣaḍja-kaiṣiki* is the first among the associate modified (*vikṛta saṃsargajā*) *jātis* which the author is now going to describe.
2. *Sa, ga, pa* being the fundamental notes, *ri, ma, dha, ni* have to be weak, but of these *ri* and *ma* are provided to be rare.
3. Of the non-fundamental notes, viz. *ri, ma, dha* and *ni*, *ri* and *ma* are declared to be rare and therefore as compared to them *dha ni* are profuse, but as compared to the fundamental notes they are at the same time weak and therefore relatively they are said to be somewhat profuse.
4. The purport of the song is as under :

Obeisance to that Hara (Śiva) who is the God that bears the imperfect moon as the *tilaka* mark, who has the gait of an elephant, who is of a sharp intellect, whose innocent lotus face is radiant with extraordinary lustre, who (in his speech) sounds like the clouds and the ocean, whose body is conjoint with the frame of the daughter of the mountain (Pārvatī) and who bears the matchless lotus face.

- Comp. S. Raj, Vol. I, p. 204 which reads अमृतोदधि meaning "the ocean of nectar" instead of अमृतोदधि of S. R.

| | | | | | | | | |
|-----|------------|-----------|------------|--------------|---------------|----------------|--------------|-------------|
| 3. | dhā a | dhā sa | pā ka | pā la | dhā śa | dha śi | ri ti | ri-ma la |
| 4. | ri kam | ri | ni | ni | ni | ni | ni | ni |
| 5. | dhā dvi | dhā ra | pā da | dha-ni ga | mā tim | mā | pā | pā |
| 6. | dhā ni | dhā pu | pā ṇa | dha-ni ma | dha tim | dha | pā | pā |
| 7. | sā mu | sā | sā gdha | sā | sā mu | sā khām | sā | sā bu |
| 8. | dhā ru | dhā ha | pā di | dhā | dha-ni vya | dha kān | dhā | dha tim |
| 9. | sā Ha | sā ra | sā mam | ri-ga | sā bu | ri-ga do | dhā | dha da |
| 10. | mā dhi | dhā ni | pā nā | pā | dhā dam | dha | ni | ni |
| 11. | ri a | ri ca | gā la | sā va | sā ra | sā sū | sā | gā nu |
| 12. | dhā de | ri-sa | ri hā | sa-ri | ri rdha | sā mi | sā | sā śri |
| 13. | sā ta | sa-ri | ri śa | sa-ri | ri ram | sā | sā | sā |
| 14. | mā pra | mā ṇa | mā mā | mā | ni-dha mi | pa-dha tama | mā ham | mā |
| 15. | ni a | ni nu | pā pa | pa-ma ma | pā mu | pa-ma kha | pa-dha ka | ri-ga ma |
| 16. | gā lam | gā | gā | gā | gā | gā | gā | gā |

9. षड्जोदीच्यवा जातिः

अंशाः समनिधाः षड्जोदीच्यवायां प्रकीर्तिताः ।

मिथश्च संगतास्ते स्युर्मन्द्रगान्धारभूरिता ॥८१॥

षड्जर्षभौ भूरितारौ रिलोपात्षाडवं मतम् ।

औडुवं रिपलोपेन धेवते ऽंशे न षाडवम् ॥८२॥

षड्जीवद्गीतितालादि गान्धारादिश्च मूर्च्छना ।
द्वितीये प्रेक्षणे गाने ध्रुवायां विनियोजनम् ॥८३॥

अस्यां षड्जोदीच्यवायां मध्यमो न्यासः । षड्जध्वंतावपन्यासौ ।

अस्याः प्रस्तारः—

१. षड्जोदीच्यवा

१. सा सा सा सा सां मां गां गां
शं ले

२. गा मा पा मा गा मा मा धा
श सू तु

३. सा सा मा गा पा पा नी धा
शं ले श सू तु

४. धा नी सा सा धा नी पा मा
प्र ण य प्र सं ग

५. गां सा सा सा सा सा गां
स वि ला स खे ल

६. धा धा पा धा पा नी धा धा
न वि नो दं

७. सा गां गां गां गां गां सा सा
अ धि क

८. नी धा पा धा पा धा धा धा
मु खें दु

९. सां सां मा गा पा पा नी धा
अ धि क मु खें दु

१०. धा नी सां सां धा नी पा मा
न य नं न मा मि

११. गां सा सा सा सा सा गां
दे वा सु रे श

१२. धा धा पा धा मां मां मां मां
त व रु चि रं

शंलेऽक्षराभ्यां प्रथमा द्वितीया तु शसूनुना ।

तैः पञ्चभिस्तृतीया स्यात्सप्तमी त्वधिकाक्षरैः ॥८४॥

मुखेन्दुना षट्मी त्वस्यां षड्भिस्तैर्नवमी कला ।

[तत्र साकल्पेन पदयोजना]

[शंलेशसूनुप्रणयप्रसङ्गसविलासखेलनविनोदम् ।

अधिकमुखेन्दुनयनं नमामि देवासुरेश तव रुचिरम् ॥]

(ix) *Ṣaḍjodīcyavā* : (81-85b)

In *ṣaḍjodīcyavā* the fundamental notes are said to be *ṣaḍja*, *madhyama*, *niṣāda* and *dhaivata* which are mutually in concert with each other; there is a profusion of the low *gāndhāra*¹ and high *ṣaḍja* and *ṛṣabha*²; the hexatone is accepted to be (caused) by the elimination of *ṛṣabha*, and the pentatone by that of *ṛṣabha* and *pañcama*; no hexatone is (possible) with *dhaivata* as the fundamental note³, the *gīti*⁴ and *tāla* etc. are

1. Even though *gāndhāra* is not a fundamental note in *ṣaḍjodīcyavā* yet it is profuse in the lower register as laid down by Bharata who says : “*Ṣaḍja*, *ṛṣabha* and *gāndhāra* have to be strong” (cf. N. S., G. O. S. Ed. XXVIII 109 p. 57).
2. *Ṣaḍja* and *ṛṣabha* are profuse in the higher register; for, as observed by ‘K’, *ṛṣabha* is the maker of the hexatone and the pentatone, and therefore in the state of completeness, it is rare along with *pañcama* according to Mātāṅga (as quoted by him). Thus the statement of Mātāṅga is valid, according to ‘K’, with regard to the low and the middle registers, and that of Bharata (quoted in 1 above) with regard to the high register. *Ṣaḍja* is one of the fundamental notes and is naturally profuse, but the provision with regard to its profusion in the higher register shows that it is comparatively more profuse there, than in the other two places.
3. Because *ṛṣabha*, being its consonant, cannot be eliminated.
4. The Adyar ed. of S. R. reads *gīti*, which has been changed here to *gīti*, as for example is the case in the following *ṣaḍja-madhyamā*. Moreover, *dhruvā-gāna* is mentioned separately in

like those of *ṣādji*, its *mūrccanā* commences with *gāndhāra*, and its proper application is in the *dhruvā* song of the second act. (81-83)

In this *ṣadjodicyavā*, *madhyama* is the final note, and *ṣādja* and *dhaivata* are the semifinal notes.

Its *prastāra*⁵ :

| | | | | | | | | |
|-----|-----|-----|------|-----|-----|------|-----|-----|
| 1. | sā | sā | sā | sā | mā | mā | gā | gā |
| | Śai | | | | le | | | |
| 2. | gā | mā | pā | mā | gā | mā | mā | dhā |
| | śa | | sū | | | | | nu |
| 3. | sā | sā | mā | gā | pā | pā | nī | dhā |
| | śai | | le | śa | sū | | | nu |
| 4. | dhā | nī | sā | sā | dhā | nī | pā | mā |
| | pra | na | ya | | pra | san | | ga |
| 5. | gā | sā | sā | sā | sā | sā | sā | gā |
| | sa | vi | lā | sa | khe | | | la |
| 6. | dha | dha | pā | dha | pā | nī | dha | dha |
| | na | vi | no | | | | dam | |
| 7. | sā | gā | gā | gā | gā | gā | sā | sā |
| | A | | dhi | | ka | | | |
| 8. | nī | dhā | pā | dhā | pā | dhā | dhā | dhā |
| | mu | | khen | | | | | du |
| 9. | sā | sā | mā | gā | pā | pā | nī | dhā |
| | a | dhi | ka | | mu | khen | | du |
| 10. | dhā | nī | sā | sā | dhā | nī | pā | mā |
| | na | ya | nam | | na | mā | | mi |
| 11. | gā | sā | sā | sā | sā | sā | sā | gā |
| | da | | va | | su | re | | sa' |
| 12. | dhā | dhā | pā | dhā | mā | mā | mā | mā |
| | ta | va | ru | ci | ram | | | |

this same verse. The reading *gtti* is surely more significant in this context. The interpretation of 'S' also supports this view.

5. The purport of the song is as under :

O ! the lord of the gods as well as the demons, I bow down to that beautiful extra (third) eye of your moonlike face which is the means of amusement in the midst of the graceful love-sports of the daughter of the mountain (Pārvati).

The first *kalā* is (sung) by the two syllables *śai* and *le* and the second by (the three) *śa*, *sū* and *nu*, while the third is by these five. Similarly, the seventh is (sung) by (the three) syllables *a*, *dhi* and *ka* and the eighth by (the three) *mu*, *khen* and *du*, while the ninth *kalā* is (sung) by these six together. (84-85b)

It will be observed that certain portions of the text of the song, in the above *kalā-s* are repeated. Here the pattern of repetition is elucidated.

The text of the first two *kalā-s* is repeated in the third and that of the seventh and the eighth *kalā-s* is repeated in the ninth *kalā*.

The author has given specific instructions regarding the distribution of the syllables of the song among the *kalā-s* in this particular case only, in view of the repeated portions.

10. षड्जमध्यमा जातिः

अंशाः सप्त स्वराः षड्जमध्यमायां मिथश्च ते ॥८५॥

संगच्छन्ते निरल्पो ऽंशाद्गादृते वादितां विना ।

निलोपनिगलोपाभ्यां षाडवौडु विते मते ॥८६॥

षाडवौडुवयोः स्यातां द्विश्रुती तु विरोधिनौ ।

गीतितालकलाऽऽदीनि षाड्जीवन्मूर्च्छना पुनः ॥८७॥

मध्यमादिरिह ज्ञेया पूर्वावद्विनियोजनम् ।

अस्यां षड्जमध्यमायां षड्जमध्यमो न्यासौ । सप्त स्वरा
अपन्यासाः । अस्याः प्रस्तारः—

१०. षड्जमध्यमा

१. मा गा सग पा धप मा निध निम

र ज नि व धू मु ष

२. मां मां सां रिगं मंगं निध पध पा

वि ला स लो च

३. मा गा री गा मा मा सा सा
नं
४. मा मगम मा मा निध पध पम गमम
प्र वि क सि त कु मु द
५. धा पध परि रिग मग रिग सधस सा
द ल फे न सं नि
६. निध सा री मगम मा मा मा मा
भं
७. मां मां मंगंमं मंघं धंपं पंधं पंमं गंमं
का मि ज न न य न
८. धा पध परि रिग मग रिग सधस ता
हृ द या भि नं वि
९. मा मा धनि धस धप मप पा पा
नं
१०. मां मंगंमं मां निधं पंधं पंमं गां मां
प्र ण मा मि दे वं
११. धा पध परि रिग मग रिग सधस सा
कु मु दा धि वा सि
१२. निध सा री मगम मा मा मा मा
नं

[तत्र साकल्येन पदयोजना]

[रजनिवधूमुखविलासलोचनं

प्रविकसितकुमुददलफेनसंनिभम् ।

कामिजननयनहृदयाभिनन्दनं

प्रणमामि देवं कुमुदाधिवासिनम् ॥]

(x) *Ṣaḍja-madhyamā* : (85c-88b)

In *ṣaḍja-madhyamā*, (all) the seven notes are the fundamental notes which move in concert with each other, *niṣāda* is rare¹ except when *gāndhāra* is the fundamental note² or when it (*niṣāda*) is the sonant³; the hexatone and the pentatone are accepted to be (caused) by the respective elimination of *niṣāda*, and *niṣāda* and *gāndhāra*; both these (*ni* and *ga*) are adverse⁴ to the hexatonic and pentatonic formations; *gṛīti*, *tāla*, *kāla*, etc. are like those of *ṣaḍjī*; its *mūrccanā* is known to commence with *madhyama*, while its proper application is like that of the previous one.⁵ (85c-88b)

In this *ṣaḍja-madhyamā*, *ṣaḍja* and *madhyama* are the final notes, and (all) the seven notes are semifinal notes. Its *prastāra*⁶:

| | | | | | | | | |
|----|----|----|-------|-------|--------|--------|--------|-------|
| 1. | mā | gā | sa-ga | pā | dha-pa | mā | ni-dha | ni-ma |
| | Ra | ja | ni | va | dhū | | mu | kha |
| 2. | mā | mā | sā | ri-ga | ma-ga | ni-dha | pa-dha | pā |
| | vi | lā | | sa | lo | | | ca |

1. *Niṣāda* is rare in the state of completeness.
2. Even in the state of completeness, if *gāndhāra* is the fundamental note, then the rarity of *niṣāda* which is its consonant is not desirable.
3. When, however, *niṣāda* is the *vādī* (sonant) it cannot at all be rare.
4. The two bi-śrutic notes (*dvīśruti* of the text), *gāndhāra* and *niṣāda* are not conducive to hexatonic and pentatonic formations when they are the fundamental notes, as observed by 'K' because of the very fact that they are formed by the elimination of the *niṣāda* and *gāndhāra*, and also because the same note cannot be the fundamental note as well as the note to be eliminated. Thus, the purport is that while *ga* and *ni* are the fundamental notes, there are no hexatonic and pentatonic forms. However according to the interpretation of 'S', in the case of hexatonic and pentatonic forms taking place, *ni* and *ga* are dissonant (*viṣādti*).
5. That is, *ṣaḍjodīcyava*.
6. The purport of the song is as under :

Obeisance to Lord, the presiding spirit of the white water-lily (i. e. the moon) which is, as it were, the graceful eye of the bridal face of the night, (shining) like the froth (collected) upon the petals of the white water-lily in full bloom and which is pleasing to the heart and the looks of the lovers.

3. mā gā ri gā mā mā sā sā
nam
4. mā ma-ga-ma mā mā ni-dha pa-dha pa-ma ga-ma-ma
pra vi ka si ta ku mu da
5. dhā pa-dha pa-ri ri-ga ma-ga ri-ga sa-dha-sa sā
da la phe na sanī ni
6. ni-dha sā ri ma-ga-ma mā mā mā mā
bham
7. mā mā ma-ga-ma ma-dha dha-pa pa-dha pa-ma ga-ma-ga
Ka mi ja na na ya na
8. dhā pa-dha pa-ri ri-ga ma-ga ri-ga sa-dha-sa sā
hī da yā bhi nan di
9. mā mā dha-ni dha-sa dha-pa ma-ma pā pā
nam
10. mā ma-ga-ma mā ni-dha pa-dha pa-ma-ga gā mā
pra ṇa mā mi de vam
11. dha pa-dha pa-ri ri-ga ma-ga ri-ga sa-dha-sa sā
ku mu dā dhi vā si
12. ni-dha sā ri ma-ga-ma mā mā mā mā
nam

11. गान्धारोदीच्यत्रा जातिः

गान्धारोदीच्यवायां तु द्वावंशो षड्जमध्यमौ ॥८८॥

रिलोपात्वाडवं ज्ञेयं पूर्णत्वे ऽंशेतरान्पता ।

अल्पा निधपगान्धाराः षाडवत्वे प्रकीर्तिताः ॥८९॥

रिधयोः संगतिर्ज्ञेया धंवतादिश्च मूर्च्छना ।

तालश्चच्चत्पुटो ज्ञेयः कलाः षोडश कीर्तिताः ॥९०॥

विनियोगो ध्रुवागाने चतुर्थप्रेक्षणे मतः ।

अस्यां गान्धारोदीच्यवायां मध्यमो न्यासः । षड्जधंवताव-
पन्यासौ । अस्याः प्रस्तारः—

११. गान्धारोदीच्यवा

१. सा सा पा मा पा धप पा मा
सौ
२. धा पा मा मा सा सा सा सा
न्य
३. धा नी सा सा मा मा पा पा
गौ री मु खां बु
४. नी नी नी नी नी नी नी नी
ऊ ह वि व्य तिल क
५. मा मा धा निस नी नी नी नी
प रि चुं बि ता चि
६. मा पा मा परिग गा गा सा सा
त सु पा दं
७. गा मग पा पध मा धनि पा पा
प्र वि क सि त हे म
८. री गा सा सध नी नी धा धा
क म ल नि भं
९. गा रिग सा सनि गा रिग सा सा
अ ति रु चि र कां ति
१०. सा सा सा मा मनि धनि नी नी
न ख द र्प णा म
११. मां पां मां परिगं गां गां सां सां
ल नि के तं
१२. गां सां गां सां मां पां मां परिगं
म न सि ज श री र

१३. गां मां गां सां यां गां गां सां
ता ड नं
१४. नीं नीं पां धां नीं गां गां गां
प्र ण मा मि गौ री
१५. नीं नीं धां पां धां पां मां पां
च र ण यु ग म नु प
१६. धां पां सां सां मां मां मां मां
मं

[तत्र साकल्येन पदयोजना]

[सौम्यगौरीमुखाम्बुरुहदिव्यतिलकपरिचुम्बिताचितसुपादं
प्रविकसितहेमकमलनिभम् ।

अतिरुचिरकान्तिनखदपंगामलनिकेतं

मनसिजशरीरताडनं प्रणमामि गौरीचरणयुगमनुपमम् ॥]

(xi) *Gāndhāroḍīcyavā* : (88c-91b)

In *gāndhāroḍīcyavā*, however, there are only two fundamental notes, viz. *ṣaḍja* and *madhyama*; the hexatone is (caused) by the elimination of *ṛṣabha* and in the state of completeness the notes other than¹ the fundamental notes are rare, while in the case of hexatone *niṣāda*, *dhaivata*, *pañcama* and *gāndhāra* are said to be rare;² *ṛṣabha* and *dhaivata* may be comprehended to be in concert,³ (and its) *mūrchanā* commences with *dhaivata*; the *tāla* is known to be *caccatpuṭa* and the *kalā-s* are said to be sixteen; its proper application is accepted to be in the *dhruvā* song of the fourth act. (88c-91b)

1. *Ahṣetara*, i. e. other than the fundamental notes, viz. other than *sa* and *ma*, i. e., *ri*, *ga*, *pa*, *dha*, *ni*—these are said to be rare in the state of completeness.
2. In the hexatonic forms only *ni*, *dha*, *pa* and *ga* are said to be rare, because *ri* is eliminated. No pentatonic forms are possible here as ordained by Bharata. (cf. N. S. Bom. Ed. p. 450).
3. This applies to the state of completeness only, for *ri* is eliminated in the hexatonic forms.

In this *gāndhāroḍīcyavā* the final note is *madhyama*, and *ṣaḍja* and *dhaivata* are the semifinal notes.

Its *prastāra*⁴ :

| | | | | | | | | |
|-----|------------|------------|------------|------------------------|-------------|-------------|-----------|------------|
| 1. | sā | sa | pā | mā | pā | dha-pa | pā | mā |
| | <i>sau</i> | | | | | | | |
| 2. | dhā | pā | mā | mā | sā | sā | sā | sā |
| | <i>mya</i> | | | | | | | |
| 3. | dhā | nī | sā | sā | mā | mā | pā | pā |
| | <i>gau</i> | | <i>ri</i> | | <i>mu</i> | <i>khām</i> | | <i>bu</i> |
| 4. | nī | nī | nī | nī | nī | nī | nī | nī |
| | <i>ru</i> | <i>ha</i> | <i>di</i> | | <i>vya</i> | <i>ti</i> | <i>la</i> | <i>ka</i> |
| 5. | mā | mā | dhā | ni-sa | nī | nī | nī | nī |
| | <i>pa</i> | <i>ri</i> | <i>cum</i> | | <i>bi</i> | <i>tā</i> | | <i>rei</i> |
| 6. | mā | pā | mā | pa-ri-ga | gā | gā | sā | sā |
| | <i>ta</i> | <i>su</i> | <i>pā</i> | | <i>dam</i> | | | |
| 7. | gā | ma-ga | pā | pa-dha | mā | dha-ni | pā | pā |
| | <i>pra</i> | <i>vi</i> | <i>ka</i> | <i>si</i> | <i>ta</i> | <i>he</i> | | <i>ma</i> |
| 8. | rī | gā | sā | sa-dha | nī | nī | dhā | dha |
| | <i>ka</i> | <i>ma</i> | <i>la</i> | <i>ni</i> | <i>bham</i> | | | |
| 9. | gā | ri-ga | sā | sa-ni | gā | ri-ga | sā | sā |
| | <i>A</i> | <i>ti</i> | <i>ru</i> | <i>ci</i> | <i>ra</i> | <i>kān</i> | | <i>ti</i> |
| 10. | sā | sā | sā | mā | ma-ni | dha-ni | nī | nī |
| | <i>na</i> | <i>kha</i> | <i>da</i> | | <i>rpa</i> | <i>ṇā</i> | | <i>ma</i> |
| 11. | mā | pā | mā | pa-ri ⁵ -ga | gā | gā | sā | sā |
| | <i>la</i> | <i>ni</i> | <i>ke</i> | | <i>tam</i> | | | |
| 12. | gā | sā | gā | sā | mā | pā | mā | pa-ri-ga |
| | <i>ma</i> | <i>na</i> | <i>si</i> | <i>ja</i> | <i>śa</i> | <i>ri</i> | <i>ra</i> | |

4. The purport of the song is as under :

Obeisance to the auspicious feet (of Śiva) that are worshipped as they are kissed by the divine *tilaka* mark on the gentle lotus face of Gaurī and that (caused) the destruction of the mind-born (cupid); and also to the two matchless feet of Gaurī that are (resplendent) like the golden lotus in full bloom, that are the abode of pristine purity of the mirror-nails that reflect fascinating lustre.

5. Ad. ed. of S. R. reads pa-ri-ga, but *ri* has been marked *tara* (high) on the basis of 'K' and K. R. for it seems their interpretation is technically sound.

| | | | | | | | | |
|-----|------------|----------|-----------|----------|-----------|-----------|----------|----------|
| 13. | gā īā | mā | gā | sā īā | gā nam | gā | gā | sā |
| 14. | ni pra | ni ṇa | pā mā | dhā | ni mi | gā gau | gā | gā ri |
| 15. | ni ca | ni ra | dhā ṇa | pā yu | dhā ga | pā ma | mā nu | pā pa |
| 16. | dha mam | pā | sā | sā | mā | mā | mā | mā |

12. रक्तगन्धारी जातिः

अंशाः स्यू रक्तगन्धार्या पञ्च धर्षभर्वाजिताः ॥९१॥

रिमतिक्रम्य सगयोः कार्ये संनिधिमेतने ।

रिलोपरिधलोपाभ्यां षाडवौडुवमिष्यते ॥९२॥

बहुत्वं निधयोरंशः पञ्चमो द्वेष्टि षाडवम् ।

द्विषन्त्यौडुवितं षड्जनिमपाः संगतो सगौ ॥९३॥

पञ्चपाण्यादि षाड्जीवदृषभादिस्तु मूर्च्छना ।

तृतीयप्रेक्षणगतध्रुवायां विनियोजनम् ॥९४॥

अस्यां रक्तगन्धार्या गन्धारो न्यासः । मध्यमोऽपन्यासः । अस्याः

प्रस्तारः---

१२. रक्तगन्धारी

१. पा नी सा सा गा सा पा नी
तं बा ल र ज नि

२. सां सां पा पा मा मा गा गा
क र ति ल क भू ष

३. मा पा धा पा मा पा धप मग
ण वि भू

४. मा मा मा मा मा मा मा मा
ति

५. धां नीं पां मपं धां नीं पां पां

०

६. मां पां मां धंति पां पां पां पां

०

७. री गा मा पा पा पा मा पा

प्र ण मा मि गौ री

८. री गां मां पां पां पां मां पां

व द ना र वि

९. पा पा पा पा शा पा पा पा

द

१०. री गा सा सा री गा गा गा

प्री ति क रं

११. गां गां पां धमं धां निधं पां पां

०

१२. मां पां मां परिगं गां गं गां गां

०

[तत्र साकल्येन पदयोजना]

[तं बालरजनिकरतिलकभूषणविभूतिम् ।

प्रणमामि गौरीवदनारविन्दप्रीतिकरम् ॥]

(xii) *Rakta-gāndhārī* : (91c-94)

In *rakta-gāndhārī*, the fundamental notes are five, i. e. (the notes) other than *dhaivata* and *ṛṣabha*¹; *ṣaḍja* and *gāndhāra* should be brought into close contact (*sannidhi*) and in coordination (*melana*) with the other notes excepting *ṛṣabha*²; the

1. That is, *sa*, *ga*, *ma*, *pa* and *ni*.

2. Here the author is talking of two different relationships of *ṣaḍja* and *gāndhāra*, viz. *sannidhi* and *melana*. 'K' defines the former as the continuity of the two notes of different *laghu-kāla* (i. e. duration of time in terms of *laghu-s*) and the latter as the continuity of two or three notes of identical *laghu-kāla*. The purport is that these relations should be effected.

hexatone and the pentatone are formed by the respective elimination of *ṛṣabha*, and *ṛṣabha* and *dhaivata*; *niṣāda* and *dhaivata* are profuse³ and *pañcama* as the fundamental note does not admit the hexatone⁴, while *ṣaḍja*, *niṣāda*, *madhyama* and *pañcama* (as fundamental notes) are not conducive to pentatonic formation⁵; *ṣaḍja* and *gāndhāra* are in concert with each other⁶; the *pañcapāṇi* etc. are like those of *ṣaḍjī* and the *mūrccchanā* commences with *ṛṣabha*; its proper application is in the *dhruvā* (song) of the third act. (91c-94)

In this *rakta-gāndhārī*, *gāndhāra* is the final note and *madhyama* is the semifinal note. Its *prastāra*⁷:

| | | | | | | | | |
|----|-----|----|----|----|----|-----|----|----|
| 1. | pā | ni | sā | sā | gā | sā | pā | ni |
| | Tam | | ba | | la | ra | ja | ni |
| 2. | sā | sā | pā | pā | mā | mā | gā | gā |
| | ka | ra | ti | lu | ka | bhū | | ṣa |

3. *Niṣāda* and *dhaivata* are profuse. 'K' comments on this statement as follows. *Niṣāda* is a fundamental note and, as such, is naturally profuse, and yet if any specific mention is made about it, obviously it has been done to indicate that it is very profuse, i. e. more than can otherwise be expected in case of a fundamental note. Again *dhaivata* is the maker of the pentatonic form, and as such its profusion is out of question in the pentatonic forms, while in the hexatonic and complete forms as well it must ordinarily be weak. So its profusion is ordained as an exception by Bharata: "Dhaivata and *niṣāda* will be strong" (as quoted by 'K' and N. S. Bom. Ed., pp. 449, 450). However, in the critical edition of G. O. S. the following reading is found which seems to be quite appropriate. "Dhaivata is strong here, though it becomes weak when eliminated (N. S. XXVIII 116, p. 58).
4. This is a *jāti* of *madhyama-grāma* in which *pañcama* and *ṛṣabha* are consonant. If *pañcama* be the fundamental note, *ṛṣabha* cannot be eliminated, and the hexatone is formed by the elimination of *ri*, consequently it is not formed.
5. Similarly, *sa*, *ni*, *ma* and *pa* as fundamental notes do not tolerate the elimination of *ri* and *dha* for forming pentatone forms, which are therefore possible only with *gāndhāra* as the fundamental note.
6. The *sannidhi* and *melana* of *sa* and *ga* with other notes have already been spoken of; their *saṅgati* spoken of here, as observed by 'K' is between them 'a mutual relation'. It seems that in Kallinātha's view *sannidhi* and *melana* are forms of *saṅgati*.
7. The purport of the song reads as under:

Obeisance to that (Śiva) who is decorated by the ornament of the new moon for his *tilaka* mark and who is delighting to the lotus face of Gaurī.

| | | | | | | | | |
|-----|-----|----|-----|----------|-----|--------|--------|-----------------|
| 3. | mā | pā | dhā | pā | mā | pā | dha-pa | ma-ga |
| | ṇa | vi | bhū | | | | | |
| 4. | mā | mā | mā | mā | mā | mā | mā | mā |
| | tim | | | | | | | |
| 5. | dhā | ni | pā | mā-pā | dhā | ni | pā | pā |
| | o | | | | | | | |
| 6. | mā | pā | mā | dhā-ni | pā | pā | pā | pā |
| | o | | | | | | | |
| 7. | ri | gā | mā | pā | pā | pā | mā | pā |
| | Pra | ṇa | mā | | mi | gau | | ri |
| 8. | ri | gā | mā | pā | pā | pā | mā | pā |
| | va | da | nā | | ra | vin | | |
| 9. | pā | pā | pā | pā | pā | pā | pā | pā |
| | da | | | | | | | |
| 10. | ri | gā | sā | sā | ri | gā | gā | gā |
| | pri | | ti | ka | ram | | | |
| 11. | gā | gā | pā | dha-ma | dhā | ni-dhā | pā | pā ⁸ |
| | o | | | | | | | |
| 12. | mā | pā | mā | pa-ri-ga | gā | gā | gā | gā |
| | o | | | | | | | |

13. कैशिकी जाति:

कैशिक्यामृषभान्ये ऽंशा निधावंशौ यदा तदा ।

न्यासः पञ्चम एव स्यादन्यदा द्विश्रुती मते ॥९५॥

अन्ये तु निगपान्यासान्निधयोरंशयोर्विदुः ।

रिलोपरिधलोपेन षाडवौडुवितं मतम् ॥९६॥

रिरल्पो निपबाहुत्यमंशानां संगतिर्मिथः ।

षाडवौडुविते द्विष्टः क्रमात्पञ्चमधैवतौ ॥९७॥

षाड्जीवत्पञ्चपाण्यादि गान्धारादिस्तु मूर्च्छना ।

पञ्चमप्रेक्षणगतध्रुवायां विनियोजनम् ॥९८॥

8. Ad. ed. of S. R. reads *pā pā* which has been modified as *pā pā* with *tāra* sign on the basis of 'K' and K. R. since that is technically sound.

अस्यां कंशिक्यां गान्धारपञ्चमनिषादा न्यासाः । रिवर्ज्याः षट्
सप्त वा स्वरा अपन्यासाः । अस्याः प्रस्तारः—

१३. कंशिकी

१. पा धनि पा धनि गा गा गा गा
के ली ह त

२. पा पा मा निध निध पा पा पा
का म त नु

३. धा नी सा सा री री री री
वि भ्र म वि ला सं

४. सा सा सा री गा मा मा मा
ति ल क यु तं

५. मां धां नीं धां मां धां मां पां
मू र्धो र्ध्वं बा ल

६. गा री सा धनि री री री री
सो म नि भं

७. गा री सा सा धा धा मा मा
मु ख क म लं

८. गा गा गा मा मा निधनि नी नी
अ स म हा ट

९. गा गा नी नी गा गा गा गा
क स रो जं

१०. गा गा नी नी नीधं पां पां पां
हृ दि सु ख दं

११. मां पां मां पां पां पां मां मां
प्र ण मा मि लो च

१२. सां मां गां निधंनि नीं नीं मां गां
न वि शे षं

[तत्र साकल्येन पदयोजना]

[किलीहतकामतनुविभ्रमविलासं तिलकयुतं मूर्धोर्ध्वबालसोमनिभम् ।
मुखकमलमसमहाटकसरोजं हृदि सुखदं प्रणमामि लोचनविशेषम् ॥]

(xiii) *Kaiṣiki* : (95-98)

In *kaiṣiki*, excepting *ṛṣabha*¹, all are fundamental notes; when however, *niṣāda* and *dhaivata* are the fundamental notes, then only *pañcama*² is the final note, otherwise³ *niṣāda* and *gāndhāra* are accepted (as the final notes). Others, however, think that in case *niṣāda* and *dhaivata* are the fundamental notes *niṣāda*, *gāndhāra* and *pañcama* can be the final notes.⁴ The hexatonic and the pentatonic formations are accepted to be (caused) by the respective elimination of *ṛṣabha*, and *ṛṣabha* and *dhaivata*. *Ṛṣabha* is rare⁵, *niṣāda* and *pañcama* are profuse⁶ and the fundamental notes are in concert with each other. *Pañcama* and *dhaivata* are repugnant⁷ respectively to the hexatonic and the pentatonic formations. *Pañcapāṇi* etc.

1. That is, *sa*, *ga*, *ma*, *pa*, *dha* and *ni*.
2. This is ordained by Bharata who says: "Gāndhāra and *niṣāda* are the final notes. When *dhaivata* is the fundamental note as also *niṣāda*, the final note is desired to be *pañcama*" (as quoted by 'K' and also Bom. Ed., pp. 452, 453).
3. That is when *sa*, *ga*, *ma* and *pa* are the fundamental notes.
4. Such as Mātāṅga who says: "When *dhaivata* and *niṣāda* are fundamental notes, *pañcama* is also a final note." Thus in this view also the special position of *pañcama* in relation to *dha* and *ni* as the fundamental notes, is retained in addition to *ni* and *ga* as the final notes.
5. That is, in the state of completeness.
6. Obviously they are very profuse since they are also included in the fundamental notes.
7. That is, *pañcama* is repugnant to the formation of the hexatone and *dhaivata* to that of the pentatone, 'K' explains that it is so because *ri* and *pa* are in consonance in the *madhyama-grāma*. So *ri* cannot be eliminated while *pa* is the fundamental note and *dha* cannot be eliminated while *dha* is the fundamental note.

are like those of *śāḍjī*, the *mūrchanā* commences with *gāndhāra* and the proper application is in the *dhruvā* (song) of the fifth act. (95-98)

In this *kaiśikī*, *gāndhāra*, *pañcama* and *nīṣāda* are the final notes and six notes leaving aside *ṛṣabha*, or even all the seven⁸ notes, are the semifinal notes.

Its *prastāra*⁹ :

| | | | | | | | | |
|----|-----------|-----------|------------|--------------|--------------|-----------|----------|-----------|
| 1. | pā Ke | dha-ni | pā li | dha-ni | gā ha | gā | gā ta | gā |
| 2. | pā kā | pā | mā ma | ni-dha ta | ni-dha nu | pā | pā | pā |
| 3. | dhā vi | nī | sā bhra | sā ma | rī vi | rī la | rī | rī sam |
| 4. | sā ti | sā la | sā ka | rī yu | gā tam | mā | mā | mā |
| 5. | mā mū | dhā | nī rdho | dhā | mā rdkva | dhā bā | mā | pā la |
| 6. | gā so | rī | sā ma | dha-ni ni | rī bham | rī | rī | rī |
| 7. | gā Mu | rī kha | sā ka | sā ma | dhā lam | dhā | mā | mā |
| 8. | gā a | gā sa | gā ma | mā | mā hā | ni-dha-ni | nī ṭa | nī |
| 9. | gā ka | gā sa | nī ro | nī | gā jam | gā | gā | gā |

8. The alternative for the seven semifinal notes has been provided by the author in view of Bharata's statement that, "sometimes even *ṛṣabha* becomes the semifinal note" (as quoted by 'K' and also see N. S., G., O. S. XXVIII 138, p. 63). 'K' presents another view as well according to which the expression 'sometimes' refers to the state of completeness.

9. The purport of the song is as under :

Obeisance to the lotus face with the *tilaka* mark on the forehead resplendent with the new moon on the head, graced by the amorous perturbation that playfully destroyed the physical frame of cupid, having a special eye beautiful as the unparalleled golden lotus and bestowing comfort to the heart.

| | | | | | | | | |
|-----|-----------|----------|------------------------|-----------|---------------|------------------|----------|----|
| 10. | gā hṛ | gā di | nī ¹⁰ su | nī kha | ni-dha dam | pā | pā | pā |
| 11. | mā pra | pā ra | mā mā | pā | pā mi | pā lo | mā ca | mā |
| 12. | sā na | mā vi | gā śe | ni-dha-ni | nī ṣam | nī ¹¹ | mā | gā |

14. मध्यमोदीच्यवा जातिः

पञ्चमांशा सदा पूर्णा मध्यमोदीच्यवा मता ।

लक्ष्म शेषं विजानीयाद् गान्धारोदीच्यवागतम् ॥९९॥

मूर्च्छना मध्यमाविः स्यात्तालश्रच्चत्पुटो मतः ।

चतुर्थस्य प्रेक्षणस्य ध्रुवायां विनियोजनम् ॥१००॥

अस्यां मध्यमोदीच्यवायां मध्यमो न्यासः । अस्याः प्रस्तारः—

१४. मध्यमोदीच्यवा

| | | | | | | | | |
|----|----|-----|-----|-----|-----|-----|-----|-----|
| १. | पा | घनि | नी | नी | मा | पा | नी | पा |
| | दे | हा | धं | रु | प | | | |
| २. | री | री | री | गा | सा | रिग | गा | गा |
| | म | ति | कां | ति | म | म | ल | |
| ३. | नी | नी | नी | नी | नी | नी | नी | नी |
| | म | म | लें | दु | कं | द | | |
| ४. | नी | नी | धप | मा | निध | निध | पा | पा |
| | कु | मु | द | नि | भं | | | |
| ५. | पा | पा | री | री | री | री | री | री |
| | चा | मी | क | रां | बु | | | |
| ६. | मा | रिग | सा | सधं | नीं | नीं | नीं | नीं |
| | रु | ह | दि | व्य | कां | ति | | |

10 & 11. S. R. reads *nī* but it has been modified to read as *nī* with the *tārasign* on the basis of 'K' and K. R. as it is technically sound.

७. मा पा नी सा पा पा गा गा
प्र व र ग ण पू जि
८. गा पां मां निधं नीं नीं सा सा
त म जे यं
९. पां पां मां धंनि पां पां पां पां
सु रा भिष्टु त म नि ल
१०. मां पां मां रिग गा गा गा गा
म नो ज व मं बु
११. गा पा मा पा नी नी नी नी
दो द धि नि ना द
१२. मा पा मा परिग गा गा गा गा
म ति हा सं
१३. गां गां गां गां मां निधं नीं नीं
शि वं शां त म सु र
१४. नी नी धप मा निध निध पा पा
च मू म थ नं
१५. रीं गां सां सां मां निधंनिं नीं नीं
वं दे त्रं लो क्य
१६. नीं नीं धां पा धां पां मां मां
न त च र णं

[तत्र साकल्येन पदयोजना]

[देहार्धरूपमतिकान्तिममलममलेन्दुकुन्दकुमुदनिभं

चामीकराम्बुरहदिव्यकान्तिप्रवरगणपूजितमजेयम् ।

सुराभिष्टुतमनिलमनोजवमम्बुदोदधिनिनादमतिहासं

शिवं शान्तमसुरचमूमथनं वन्दे त्रैलोक्यनतचरणम् ॥]

(xiv) *Madhyamodicyavā* : (99-100)

Madhyamodicyavā is considered always to be complete¹ with *pañcama* for its fundamental note. Its other features may be understood to be like those of *gāndhārodicyavā*.² Its *mūrcchanā* commences with *madhyama*, *tāla* is accepted to be *caccatpūṭa* and its proper application is in the *dhruvā* of the fourth act. (99-100)

The final note, in this *madhyamodicyavā* is *madhyama*.

Its *prastāra*³ :

| | | | | | | | | |
|----|-----|--------|--------|--------|--------|--------|-----|----|
| 1. | pā | dha-ni | ni | ni | mā | pā | ni | pā |
| | De | | hā | | rdha | rū | | pa |
| 2. | ri | ri | ri | gā | sā | ri-ga | gā | gā |
| | ma | ti | kān | | ti | ma | ma | la |
| 8. | ni | ni | ni | ni | ni | ni | ni | ni |
| | ma | ma | len | | du | kun | | da |
| 4. | ni | ni | dha-pa | mā | ni-dha | ni-dha | pā | pā |
| | ku | mu | da | ni | bham | | | |
| 5. | pā | pā | ri | ri | ri | ri | ri | ri |
| | cā | | mi | | ka | rām | | bu |
| 6. | mā | ri-ga | gā | sa-dha | ni | ni | ni | ni |
| | ru | ha | di | | | ya | kān | ti |
| 7. | mā | pā | ni | sā | pā | pā | gā | gā |
| | pra | va | ra | ga | ra | pū | | ji |

1. That is, no hexatonic or pentatonic forms are possible in it.
2. Other features imply the rareness and the profusion, the sixteen *kalā-s* and so on—these may be understood to be the same as in *gāndhārodicyavā*.
3. The purport of the song is as under :

Obeisance to Śiva in His *Ardhanārīśvara* form which is extremely bright, pure and resembles (in its whiteness) the clear moon, white jasmine and the white water lily, who is worshipped by the chiefs of his troops, extremely resplendent like the golden lotus, who is invincible, is adored by the gods, has the speed of the wind and of the mind and the sound of the clouds and of the ocean and has the tumultuous laughter, who is peaceful, the vanquisher of the army of demons and whose feet are worshipped by all the three worlds.

| | | | | | | | |
|-----|-----------|-----------|--------------|-----------------|---------------|-----------------|------------------------------------|
| 8. | gā ta | pā ma | ma je | ni-dha yam | nī yam | nī sā | sā sā |
| 9. | pā Su | pā ra | mā bhi | dha-ni ṣṭu | pā ta | pā ma | pā ni |
| 10. | mā ma | pā no | mā ja | ri-ga va | gā mam | gā gā | gā bu |
| 11. | gā do | pā da | mā da | pā dhi | nī ni | nī nā | nī da |
| 12. | mā ma | pā ti | mā hā | pa-ri-ga sam | gā sam | gā gā | gā gā |
| 13. | gā Śi | gā vam | gā śān | gā ta | mā ma | ni-dha ma | nī su |
| 14. | nī ca | nī mū | dha-pa ma | mā tha | ni-dha nam | ni-dha pā | pā pā |
| 15. | ri van | gā de | sā de | sā tra | mā tra | ni-dha-ni lo | nī kya |
| 16. | nī na | nī ta | dha ca | pā ra | dha ṣam | pā mā | mā ⁴ mā ⁴ |

15. कार्मारवी जातिः

कार्मारव्यां भवन्त्यंशा निषादरिपधेवताः ।

बहवोऽन्तरमार्गत्वादनंशाः परिकीर्तिताः ॥१०१॥

गान्धारोऽयन्तबहुलः सर्वांशस्वरसंगतिः ।

षड्धत्पुटः षोडशात्र कलाः, षड्जादिमूर्च्छना ॥१०२॥

पञ्चमस्य प्रेक्षणस्य ध्रुवायां विनियोजनम् ।

अस्यां कार्मारव्यां पञ्चमो न्यासः । अंशा एवापन्यासाः । अस्याः

प्रस्तारः—

4. Ad. ed. reads mā which has been modified to read as ma with the tāra sign on the basis of the interpretation of 'K' and the surmise of K. R. which is technically sound.

१५. कार्मारवी

१. री री री री री री री री
तं स्था णु ल लि त
२. मा गा सा गा सा नी नी नी
वा मां ग स क्त
३. नीं मां नीं मां पां पां गा गा
म ति ते जः प्र स र
४. गा पा मा पा नी नी नी नी
सौ धां शु कां ति
५. रो' गा सा नी' रो' गा रो' मा
फ णि प ति मु खं
६. री गा री सा नी धनि पा पा
उ रो वि पु ल सा ग
७. मां पा मां तरिगं गा गा गा गा
र नि के तं
८. री री गा सम मा मा पा पा
सि त पं न गें द्र
९. मा पा मा परिग ग गा गा गा
म ति कां तं
१०. धा नी पा मा धा नी सा सा
ष ण्मु ख वि नो द
११. मी नी नो नी नी नी नी नी
क र प ल्ल वां गु
१२. मां मां धां नीं सनिनि धा पा पा
लि वि ला स की न

१३. मा पा मा परिग गा गा गा गा
न वि नो दं
१४. नी नी पा धनि गा गा गा गा
प्र ण मा मि दे व
१५. सां रो' गां सां नी' नी' नी' नी'
य जो प वी त
१५. नी' नी' धां धां पां पां पां पां
कं

[तत्र साकल्येन पदयोजना]

[तं स्थाणुर्लालतवामाङ्गसक्तमतितेजः-प्रसरसौधांशुकान्ति-फणिपति-
मुखमुरोविपुलसागरनिकेतं सितपद्मगेन्द्रमतिकान्तम् ।

षण्मुखविनोदकरपल्लवाङ्गुलिविलासकीलनविनोदं

प्रणमामि देवयज्ञोपवीतकम् ॥]

(xv) *Kārmāravi* : (101-103b)

In *kārmāravi*, the fundamental notes are *niṣāda*, *ṛṣabha*, *pañcama* and *dhaivata*. Due to *antaramārga* the non-fundamental notes¹ are said to be profuse, *gāndhāra*² is very profuse and all the fundamental notes are in concert with each other. *Caccatpuṭa* is the *tala* and there are sixteen *kalā-s* in it. The

1. The non-fundamental notes are *sa*, *ga*, and *ma*, and as such they should be weak, but they are said to be profuse because of *antaramārga* (see verses 52-53 for the definition). 'K' raises the question, "If the fundamental as well as the other notes are characterised by profusion, what would be the distinction in-between them?" and he answers, "the fundamental notes are used by way of *sthāyi* (stable pattern of tonal movement) and other notes, even though frequently repeated are employed as *sañcāri-s* (circulatory). Moreover, this is provided in view of Bharata's statement, "The non-fundamental notes are always strong because of usage" (as quoted by 'K').
2. Because *gāndhāra* is in concert with all the notes as stated by Bharata; "*Gāndhāra* specifically moves everywhere. (i. e. among all the notes)" Cf. N. S., G. O. S. Ed. XXVIII 136, p. 62.

mūrccchanā commences with *ṣaḍja* and its proper application is in the *dhruvā* of the fifth act. (101-103b)

Pañcama is the final note in this *kārmāravi* and its fundamental notes are the semifinal notes.

Its *prastāra*³ :

| | | | | | | | | |
|----|-----|----|-------|----------|-----|--------|----|-----|
| 1. | ri | ri | ri | ri | ri | ri | ri | ri |
| | Tam | | sthā | | ṇu | la | li | ta |
| 2. | mā | gā | sā | gā | sā | nī | nī | nī |
| | vā | | māh | | ga | sa | | ktā |
| 3. | nī | mā | nī | mā | pā | pā | gā | gā |
| | ma | ti | te | | jaḥ | pra | sa | ra |
| 4. | gā | pā | mā | pā | nī | nī | nī | nī |
| | sau | | dhāin | | śu | kān | | ti |
| 5. | ri | gā | sā | nī | ri | gā | ri | mā |
| | pha | ṇi | pu | ti | mu | kham | | |
| 6. | ri | gā | ri | sā | nī | dha-ni | pā | pā |
| | u | ro | vi | pu | la | sā | | ga |
| 7. | mā | pā | mā | pa-ri-ga | gā | gā | gā | gā |
| | ra | ni | ke | | tam | | | |

3. The purport of the song reads as under :

Obeisance to that sacred thread of Lord (Śiva) which is attached to the graceful left side of His and is extremely resplendent, radiating the splendour of its silvery rays, having the king of serpents (*vāsuki*) as its mouth (knot), which has the ocean of the vast chest (of Śiva) for its abode, which is (made of) the white serpent of extraordinary brilliance and which serves for the amusement of Śaṅmukha, who, in his graceful play, engages his artful fingers in toying with it.

An alternative interpretation :

Obeisance to the hood of that king of serpents (*Vāsuki*), the lovely white snake, who, like the sacred thread of the Lord, as it were, is attached to the graceful left side of Śiva and is extremely resplendent, radiating the splendour of its silvery rays, who has the ocean of the vast chest (of Śiva) for its abode, and who amuses Śaṅmukha engaged in toying with it by the sportive movement of the fingers of his graceful hands.

3. Comp. S. Raj (Vol. I, p. 235) which reads कोपान्निकान्ति (i. e. the splendour of the fire of anger) instead of सोपान्निकान्ति of the Ad. ed. of S. R.

| | | | | | | | | |
|-----|-----------|-----------|-----------|-------------|----------------|-----------|----------|-----------|
| 8. | ri si | ri ta | gā pan | sa-ma na | mā na | mā gen | pā pa | pa dra |
| 9. | mā ma | pā li | mā kān | pa-ri-ga | gā tam | gā gā | gā gā | gā gā |
| 10. | dhā ṣa | ni ṣa | pā ṣmu | mā kha | dhā vi | ni no | sā sā | sā da |
| 11. | ni ka | ni ra | ni pa | ni lla | ni oḥā | ni oḥā | ni gu | ni gu |
| 12. | mā li | mā vi | dhā lā | ni sa | sa-ni-ni sa | dhā kī | pā pā | pā lā |
| 13. | mā na | pā vi | mā no | pa-ri-ga | gā dam | gā gā | gā gā | gā gā |
| 14. | ni pra | ni pa | pā mā | dha-ni | gā mi | gā de | gā gā | gā va |
| 15. | sā ya | ri jāo | gā jāo | sā pa | ni vi | ni ni | ni ni | ni lā |
| 16. | ni kam | ni | dha | dha | pā | pā | pā | pā |

16. गान्धारपञ्चमी जातिः

अंशो गान्धारपञ्चम्यां पञ्चमः, संगतिः पुनः ॥१०३॥

कर्तव्या ऽत्रापि गान्धारीपञ्चम्योरिव भूरिभिः ।

चच्चत्पुटः षोडशात्र कला गादिश्च मूर्च्छना ॥१०४॥

तुर्यप्रेक्षणसम्बन्धिध्रुवागाने नियोजनम् ।

अस्यां गान्धारपञ्चम्यां गान्धारो न्यासः । ऋषभपञ्चमावपन्यासौ ।

अस्याः प्रस्तारः—

१६. गान्धारपञ्चमी

१. पा मप मध नी धप मा धा नी
कां

२. सनिनि धा पा पा पा पा पा पा
तं

३. धा नी सा सा मा मा पा पा
वा मं क दे श
४. नी नी नी नी नी नी नी नी
प्रेँ खो ल मा न
५. नी नी धप मा निध निध पा पा
क म ल नि भं
६. पा पा रो रो रो रो रो रो
व र सु र भि कु सु म
७. मा रिग सा सध नी नी नी नी
गं धा धि वा सि
८. नी नी सां रिं रो' रो' रो' रो'
त म नो ज्ञ
९. नी गा सा निग सा नीं नीं नीं
न ग रा ज सू तु
१०. नीं मां नीं मां पां पां गा गा
र ति रा ग र भ स
११. गा पां मां पां नीं नीं नीं नीं
के ली कु च प्र
१२. मा पा मा परिग गा गा गा गा
ह ली लं तं
१३. नीं नीं पां धां नीं गा गा गा
प्र ण मा मि दे वं
१४. नीं नीं नीं नीं नीं नीं नीं नीं
चं द्रा धं मं डि
१५. मां मां धां नीं सनिनि धा पा पा
त वि ला सकी ल

१६. मा पा मा परिग गा गा गा गा
न वि नो दं

[तत्र साकल्येन पदयोजना]

[कान्तं वामकदेशप्रेङ्खोलमानकमलनिभं वरसुरभिकुसुमगन्धाधि-
वासितमनोज्ञनगराजसूनुरतिरागरभसकेलीकुचप्रहलीलम् ।
तं प्रणमामि देवं चन्दार्धमण्डितविलासकीलनविनोदम् ॥]

(xvi) *Gāndhāra-pāñcamī* :

In *gāndhāra-pāñcamī*, the fundamental note is *pāñcama* and like *gāndhāri* and *pāñcamī*, here too, many notes have to be brought in concert with each other¹; (the *tāla* is) *caccatpuṭa*, there are sixteen *kalā-s*, its *mūrchanā* commences with *gāndhāra* and its proper application is in the *dhruvā* song related to the fourth act. (103c-105c)

In this *gāndhāra-pāñcamī* the final note is *gāndhāra*, and *ṛṣabha* and *pāñcama* are the semifinal notes.

Its *prastāra*² :

| | | | | | | | | |
|----|------------|-------|------------|----|-----------|-----------|-----|-----------|
| 1. | pā | ma-pa | ma-dha | nī | dha-pa | mā | dhā | nī |
| | <i>Kān</i> | | | | | | | |
| 2. | sa-ni-ni | dhā | pā | pā | pā | pā | pā | pā |
| | | | <i>tam</i> | | | | | |
| 3. | dhā | nī | sā | sā | mā | mā | pā | pā |
| | <i>vā</i> | | <i>mai</i> | | <i>ka</i> | <i>de</i> | | <i>śa</i> |

1. In *gāndhāri*, the fundamental and the final notes are in concert with the rest of the notes, so here too likewise, *gāndhāra* and *pāñcama* are deduced to be in concert with the rest, viz. *sa*, *ri*, *mā*, *dha* and *nī*. In *pāñcamī* *ri* and *ma* are in concert, so may it be understood here as well.

2. The purport of the song is as under :

Obeisance to that beloved Lord who is like the swinging lotus in leaning towards his left side alone (Pārvati being seated to his left), who is sportively making love by briskly and playfully holding the breasts of the beautiful daughter of the mountain (Pārvati) scented by the perfume of the most fragrant flowers and who takes delight in sporting the half moon for his embellishment.

| | | | | | | | | |
|-----|-------------|-----------|------------|------------|--------------|------------|------------|-----------------|
| 4. | nī | nī | nī | nī | nī | nī | nī | nī |
| | <i>preḥ</i> | | <i>kho</i> | | <i>la</i> | <i>mā</i> | | <i>na</i> |
| 5. | nī | nī | dha-pa | mā | ni-dha | ni-dha | pā | pā |
| | <i>ka</i> | <i>ma</i> | <i>la</i> | <i>ni</i> | <i>bham</i> | | | |
| 6. | pā | pā | ri | ri | ri | ri | ri | ri |
| | <i>va</i> | <i>ra</i> | <i>su</i> | <i>ra</i> | <i>bhi</i> | <i>ku</i> | <i>su</i> | <i>ma</i> |
| 7. | mā | ri-ga | sā | sa-dha | nī | nī | nī | nī |
| | <i>gan</i> | | <i>dha</i> | <i>dhi</i> | | <i>vā</i> | | <i>si</i> |
| 8. | nī | nī | sā | ri-sa | ri | ri | ri | ri |
| | <i>ta</i> | <i>ma</i> | <i>no</i> | | <i>jñā</i> | | | |
| 9. | nī | gā | sā | ni-ga | sā | nī | nī | nī ³ |
| | <i>na</i> | <i>ga</i> | <i>rā</i> | | <i>ja</i> | <i>śū</i> | | <i>nu</i> |
| 10. | nī | mā | nī | mā | pā | pā | gā | gā |
| | <i>ra</i> | <i>ti</i> | <i>rā</i> | | <i>ga</i> | <i>ra</i> | <i>bha</i> | <i>sa</i> |
| 11. | gā | pā | mā | pā | nī | nī | nī | nī |
| | <i>ke</i> | | <i>li</i> | | <i>ku</i> | <i>ca</i> | | <i>gra</i> |
| 12. | mā | pā | mā | pa-ri-ga | gā | gā | gā | gā |
| | <i>ha</i> | <i>ti</i> | <i>lam</i> | | <i>tam</i> | | | |
| 13. | nī | nī | pā | dhā | nī | gā | gā | gā |
| | <i>pra</i> | <i>ṇa</i> | <i>mā</i> | | <i>mi</i> | <i>de</i> | | <i>vam</i> |
| 14. | nī | nī | nī | nī | nī | nī | nī | nī |
| | <i>can</i> | | <i>drā</i> | | <i>rdha</i> | <i>maṇ</i> | | <i>ḍi</i> |
| 15. | mā | mā | dhā | nī | sa-ni-ni | dhā | pā | pā |
| | <i>ta</i> | <i>vi</i> | <i>lā</i> | | <i>sa-kt</i> | <i>la</i> | | |
| 16. | mā | pā | mā | pa-ri-ga | gā | gā | gā | gā |
| | <i>na</i> | <i>vi</i> | <i>no</i> | | <i>dam</i> | | | |

17. आन्धी जातिः

आन्ध्रचामंशा निरिगवा रिगवोनिधयोस्तथा ॥१०५॥

संगतिर्न्यासपर्यन्तमंशानुक्रमतो व्रजेत् ।

षाडवं षड्जलोपेन मध्यमादिस्तु भूच्छना ॥१०६॥

पूर्वावत्तु कलातालविनियोगाः प्रकीर्तितः ।

3. Ad. ed. of S. R. reads *nī* which has been modified to read as *nī* with a dot above in conformity with 'K' and K. R.

अस्यामान्ध्र्यां गान्धारो न्यासः । अंशा एवापन्यासाः । अस्याः

प्रस्तारः—

१७. आन्ध्री

१. गा री री री री री री
त रु णे डु कु सु म
२. री गा री गा री री री
ख चि त ज टं
३. री री गा गा री री मा मा
त्रि दि व न दी स लि ल
४. री गा सा धनि नीं नीं नीं नीं
धो त मु खं
५. नीं री नीं रीं धनि धनि पां पां
न ग सू तु प्र ण यं
६. मां पां मां रिग गा गा गा गा
वे द नि धि
७. री री गा सस मा मा पा पा
प रि णा हि तु हि न
८. मां पां मा रिग गा गा गा गा
शे ल गृ हं
९. धां नीं गा गा गा गा गा गा
अ मृ त भ वं
१०. पा पा मा रिग गा गा गा गा
गु ण र हि तं
११. नी नी नी नी री री री री
त म व नि र वि श शि
१२. री री गा नी सा सा नी नी
ज्व ल न ज ल प व न

१३. पा पां मां रिगं गां गां गां गां
ग ग न त नुं

१४. री री गा संमं मां मां पां पां
श र णं व्र जा मि

१५. मां मां नीं नीं सां रीं गां पां
शु भ म ति कृ त नि ल

१६. रिगं गां गां गां गां गां गां
यं

[तत्र साकल्येन पदयोजना]

[तरुणेन्दुकुसुमखचितजटं त्रिदिवनदीसलिलधौतमुखं
नगसूनुप्रणयं वेदनिधि परिणाहितुहिनशंलगृहम् ।

अमृतभवं गुणरहितं तमवनिरविशशिज्वलनजलपवनगगनतनुं
शरणं व्रजामि शुभमतिकृतनिलयम् ॥]

(xvii) *Āndhrī* : (105c-107b)

In *āndhrī*, the fundamental notes are *niṣāda*, *ṛṣabha*, *gāndhāra* and *pañcama*; *ṛṣabha* and *gāndhāra* as well as *niṣāda* and *dhaivata* are mutually in concert with each other.¹ From the respective fundamental notes one may proceed up to the final note.² The hexatone is (caused) by the elimination of *ṣadja*, the *mūrccanā* commences with *madhyama* and the *kalā-s*,

1. 'K' interprets this to be a relation of *sannidhi* and *melana* spoken of in *raktagāndhārī* (verse 91 ante).
2. 'K' interprets *amśānukramataḥ* of the text to the following purport : Of the four fundamental notes, viz. *ni*, *ri*, *ga* and *pa* one may sing that one which is employed as such and then proceed to sing the non-fundamental or co-fundamental notes in order to come to a close with the final note. This provision is based on Bharata's statement : "*Gāndhāra* and *ṛṣabha* are related to each other in their movement and *niṣāda* and *dhaivata* as well are directed towards the final note" (as quoted by 'K', and also see Bom. Ed., p. 451 with a slight variation of the text).

the *tala*³, and its proper application are said to be like those of the previous one.⁴ (105c-107b)

In this *āndhrī*, the final note is *gāndhāra* and the very fundamental notes are the semifinal notes.

Its *prastāra*⁵ :

| | | | | | | | | |
|----|------|----|-----|--------|--------|--------|----|-----------------|
| 1. | gā | rī | rī | rī | rī | rī | rī | rī |
| | Ta | ru | nen | | du | ku | su | ma |
| 2. | rī | gā | rī | gā | rī | rī | rī | rī |
| | kha | ci | ta | ja | ṭam | | | |
| 3. | rī | rī | gā | gā | rī | rī | mā | mā |
| | tri | di | va | na | dī | sa | li | la |
| 4. | rī | gā | sa | dha-nī | nī | nī | nī | nī |
| | dhau | | ta | mu | kham | | | |
| 5. | nī | rī | nī | rī | dha-nī | dha-nī | pā | pā ⁶ |
| | na | ga | su | nu | pra | ṇa | | yam |
| 6. | mā | pā | mā | ri-ga | gā | gā | gā | gā |
| | ve | | da | ni | dhim | | | |
| 7. | rī | rī | gā | sa-sa | mā | mā | pā | pā |
| | pa | ri | nā | | hi | tu | hi | na |
| 8. | mā | pā | mā | ri-ga | gā | gā | gā | gā |
| | śai | | la | gī | ham | | | |
| 9. | dhā | nī | gā | gā | gā | gā | gā | gā |
| | A | mī | ta | bha | vam | | | |

3. *Kalākāla* is the reading of text in Ad. ed. 'K' does not comment on this portion, but 'S' seems to read *kalātāla* (i. e. *kalā* and *tāla*). Obviously his reading is technically better.

4. That is, *Gāndhāra-pāñcamī*.

5. The purport of the song is as under :

I take shelter in that (Śiva) who has the earth, sun, moon fire, water, air and the sky for his body, who has placed the flower of the new moon in the locks of his hair, whose face is washed with the waters of the Ganges, who is the beloved of the daughter of the mountain (Pārvatī), who is the treasure house of the *veda-s*, who has the vast snow-capped peak for his abode, who is the source of nectar, who is devoid of all qualities (*guṇa-s*) and in whom all wisdom abides.

6. Ad. ed. of S. R. reads *pā pā* which has been modified to read as *pā pā* with a dot above, in conformity with 'K' and K. R.

| | | | | | | | | |
|-----|-------|-----|-----|--------|-----|----|----|----|
| 10. | pā | pā | mā | ri ga | gā | gā | gā | gā |
| | gu | ṇa | ra | hi | tam | | | |
| 11. | nī | nī | nī | nī | rī | rī | rī | rī |
| | ta | ma | va | ni | ra | vi | śa | śi |
| 12. | rī | rī | gā | nī | sā | sā | nī | nī |
| | jva | la | na | ja | la | pa | va | na |
| 13. | pā | pā | mā | ri-ga | gā | gā | gā | gā |
| | ga | ga | na | ta | num | | | |
| 14. | rī | rī | gā | sa-ina | mā | mā | pā | pā |
| | śa | ra | ṇam | | vra | jā | | mi |
| 15. | mā | mā | nī | nī | sā | rī | gā | pā |
| | śu | bha | ma | ti | kr | ta | ni | la |
| 16. | ri-ga | gā | gā | gā | gā | gā | gā | gā |
| | yam | | | | | | | |

18. नन्दयन्ती जातिः

नन्दयन्त्यां पञ्चमो ऽंशो गान्धारस्तु ग्रहः स्मृतः ॥१०७॥

केश्रित्तु पञ्चमः प्रोक्तो ग्रहो ऽस्यां गीतवेदिभिः ।

मन्द्रर्षभस्य बाहुल्यं षाडवं षड्जलोपतः ॥१०८॥

हृष्यका मूर्च्छना तालः पूर्वावद् द्विगुणाः कलाः ।

विनियोगो ध्रुवागाने प्रथमप्रेक्षणे भवेत् ॥१०९॥

अस्यां नन्दयन्त्यां गान्धारो न्यासः । मध्यमपञ्चमवपन्यासौ ।

अस्याः प्रस्तारः—

१८. नन्दयन्ती

१. गा गा गा गा पा पा धप मा
सौ

२. धा धा धा धा धा नो सनिनि धा

०

३. पां पां पां पां पां पां पां पां
म्यं

४. धां नीं मां पां गां गां गां गां
वे दां ग वे द
५. मा री गा गा गा गा गा गा
क र क म ल यो नि
६. मा मा पा पा धा निध पा पा
त मो र जो वि व
७. धा नी मा पा गा गा गा गा
जि तं
८. गम पा पा पा मा मा गा गा
हरं
९. धा नी मा पा गा गा गा गा
भ व ह र क म ल गृ
१०. मा मा मा मा मा मा मा मा
हं
११. री गा मा पा पम पा पा नी
शि वं शां तं सं नि
१२. रीं रीं रीं रीं पां पां मां मां
वे श न म पू वं
१३. धां नीं सनिनि धां पां पां पां पां
शू ष ण ली लं
१४. धां नीं मां पां गां गां गां गां
उ र ने श भो ग
१५. गा पा पा पा धा मा गा मा
भा सु र शु भ पु थु
१६. धा धा नी धा पा पा पा पा
लं

१७. री गा मा पा पम पा पा नी
अ च ल प ति सू नु
१८. रीं रीं रीं रीं पां पां पां पां
क र पं क जा म
१९. पा पा पा पा धा मा मा मा
ल वि ला स की ल
२०. नीं पां गां गमं गां गां गां गां
न वि नो वं
२१. रीं रीं गां गां मां मां मां मां
स्फ टि क म णि र ज त
२२. नी पा नी मा नी धा पा पा
सि त न व दु कू ल
२३. सां सां धनि धा पा पा पा पा
क्षी रोद सा ग
२४. मा पा मा परिग गा गा सां सां
र नि का शं
२५. री री गा गा मा मा पा पा
अ ज शि रः क पा ल
२६. री री री गा मा रिग मा मा
पृ थु भा ज नं
२७. मा नी पा नी गा गा गा गा
वं दे सु ख दं
२८. मा मा पा पा धा धनि निध मा
ह र दे ह म म ल
२९. धा धा सा नी धा नी पा पा
म धु सू व न सु

३०. री' री' री' री' मा पा धा मा
ते जो धि क सु
३१. नी नी नी नी धा पा मा मा
ग ति यो
३२. मा परिग गा गा गा गा गा गा
नि

[तत्र साकल्येन पदयोजना]

[सौम्यं वेदाङ्गवेदकरकमलघोनि तमोरजोविर्वाजितं हरं
भवहरकमलगृहं शिवं शान्तं सन्निवेशनमपूर्वं
भूषणलीलमुरगेशभोगभासुरशुभपृथुलम् ।
अचलपतिसूनुकरपङ्कजामलविलासकीलनविनोदं
स्फटिकमणिरजतसितनवदुकूलक्षीरोदसागरनिकाशम् ।
अजशिरःकपालपृथुभाजनं वन्दे सुखदं
हरदेहममलमधुसूदनसुतेजोऽधिकसुगतियोनिम् ॥]

(xviii) *Nandayanti* : (107-109)

In *nandayanti*, the fundamental note is *pañcama* and the initial note is known to be *gāndhāra*¹; but however *pañcama* is said to be the initial note in this by some vocal masters. There is a profusion of low *ṛṣabha*², the hexatone is (caused) by the elimination of *ṣaḍja*, *hṛṣyakā* is the *mūrcchanā*, *tāla* is

1. It may be observed that even according to Bharata, as also Śārṅgadeva the general rule for all the *jāti-s* is that the fundamental note is also the initial note; this however, is an exception made by Bharata himself, "in a particular *jāti*, *gāndhāra* may be used as the initial note" (as quoted by 'K').
2. Here 'K' elucidates, "Since *nandayanti* is a *jāti* of *madhyama-grāma*, it is not ordinarily accessible to movement in the lower register upto *ṛṣabha*, yet because it is based on *hṛṣyakā mūrcchanā* which commences with the low *pañcama* that has *ṛṣabha* as the only consonant note, it becomes permissible to make a profuse use of low *ṛṣabha*. Moreover, Bharata has also said, "There is a profusion of *ṛṣabha* here, and that pertains to the lower register" (as quoted by 'K').

like that of the previous one³, the *kalā-s* are twice as many⁴ and its proper application is in the *dhruvā* (song) of the first act. (107c-109).

In this *nandayanti* the final note is *gāndhāra* and *madhyama* and *pañcama* are the semifinal notes.

Its *prastāra*⁵ :

| | | | | | | | | |
|----|-------|-----|-----|-----|-----|--------|----------|-----|
| 1. | gā | gā | gā | gā | pā | pā | dha-pa | mā |
| | Sau | | | | | | | |
| 2. | dhā | dhā | dhā | dhā | dhā | ni | sa-ni-ni | dhā |
| | O | | | | | | | |
| 3. | pā | pā | pā | pā | pā | pā | pā | pā |
| | myam | | | | | | | |
| 4. | dhā | ni | ni | pā | gā | gā | gā | gā |
| | ve | | da | | ga | ve | | da |
| 5. | mā | rī | gā | gā | ga | gā | gā | gā |
| | ka | ra | ka | ma | la | yo | | nim |
| 6. | mā | mā | pā | pā | dhā | ni-dha | pa | pā |
| | ta | mo | ra | jo | vi | va | | |
| 7. | dhā | nī | ni | pā | gā | gā | gā | gā |
| | rji | tam | | | | | | |
| 8. | ga-ma | pā | pā | pā | mā | mā | gā | gā |
| | haram | | | | | | | |

3. That is, like that of *āndhrī*, viz. *caccatpuṭa*.
4. That is, twice sixteen, viz. thirtytwo.
5. The purport of the song is as under :—

Obeisance to Hara (Śiva) who is gentle, who is as it were, Brahmā in the manifestation of the *Vedāṅga-s* and the *Veda-s* and who is devoid of inertia and activity (*tamas* and *rajas*), the liberator of the phenomenal existence, having the lotus for His abode, benevolent, tranquil, beginningless, the promulgator of law and order, sporting with ornaments, extending in virtue by the brilliance of his sports with the chief of serpents (Vāsukī), enjoying the pure graceful play with the lotus hands of the daughter of the mountain (Pārvatī), and (obeisance) to His body which is (sparkling) like a crystal, jewel silver, a (piece of) white new cloth and the ocean of milk, which has made a vessel of the skull of the goat-headed (Dakṣa), which is brilliant like the purity of Madhusūdana (Viṣṇu) and is the cause of the highest state of being.

| | | | | | | | | |
|-----|------------|-----------------------|-----------|------------------------|--------------|-----------|-----------|-----------------|
| 9. | dhā bha | nī va | mā ha | pā ram ^o | gā ka | gā ma | gā la | gā gī |
| 10. | mā ham | mā | mā | mā | mā | mā | mā | mā |
| 11. | rī śī | gā vam | mā śān | pā | pa-ma tam | pā san | pā | nī nī |
| 12. | rī ve | rī | rī śa | rī na | pā ma | pā pū | mā | mā rvam |
| 13. | dhā Bhā | nī śa | sa-ni-ni | dhā ṇa | pā lī | pā | pā lam | pā ^o |
| 14. | dhā u | nī ^o ra | mā ge | pā | gā śa | gā bho | gā | gā ga |
| 15. | gā bha | pā | pā su | pā ra | dhā śu | mā bha | gā pī | mā thu |
| 16. | dhā lam | dhā | nī | dhā | pā | pā | pa | pā |
| 17. | rī A | gā ca | mā la | pā pa | pa-ma tī | pā sū | pā nu | nī |
| 18. | rī ka | rī ra | rī paḥ | rī | pā ka | pā jā | pā | pā ma |
| 19. | pā la | pā vi | pā lā | pā | dhā sa | mā kī | mā | mā lā |
| 20. | nī na | pā vi | gā no | ga-ma | gā dam | gā | gā | gā |
| 21. | rī spḥa | rī ṣī | gā ka | gā ma | mā ṇī | mā ra | mā ja | mā tā |
| 22. | nī śī | pā tā | nī na | mā va | nī du | dhā kū | pā | pā lā |

6. The *anusvāra* has been supplied to make the text intelligible.

7. 'K' observes that this is the last of the associate modified *jāti-s* to have been demonstrated in the state of completeness with one of their respective fundamental notes, and their other forms with the other of their fundamental notes and so on can be worked out similarly.

8 & 9. Ad. ed. of S. R. reads *pā pā pā* and *nī* which has been

| | | | | | | | | |
|-----|-----------|------------|----------------|-----------------|-----------|--------------|--------------|-----------------|
| 23. | sā kṣī | sā | dha-ni roda | dhā | pā sā | pā | pā | pā gā |
| 24. | mā ra | pā nī | mā ka | pa-ri-ga śam | gā | gā | sā | sā |
| 25. | rī A | rī ja | gā śī | gā raḥ | mā ka | mā pā | pā | pā lā |
| 26. | rī pī | rī thu | rī bhā | gā | mā | ri-ga ja | mā | ma |
| 27. | mā van | nī | pā de | nī | gā su | gā kha | gā dam | gā |
| 28. | mā ha | mā ra | pā de | pā | dhā ha | dhā-ni ma | ni-dha ma | ma lā |
| 29. | dha ma | dha dhu | sā sū | nī | dhā du | nī na | pā | pā sū |
| 30. | rī te | rī | rī jo | rī | mā dhi | pā ka | dha | mā sū |
| 31. | nī ga | nī tī | nī yo | nī | dhā | pā | mā | mā |
| 32. | mā | pa-ri-ga | gā nim | gā | gā | gā | gā | gā ⁷ |

घ. उपसंहारः

(i) जातिविषयकाः सामान्यनिर्देशाः

अनुक्ताविह तालः स्यात्त्रिधैवंककलाऽऽदिकः ।

मार्गाः क्रमान्चित्रवृत्तिदक्षिणा, गीतयः पुनः ॥११०॥

मागधी संभाविता च पृथुलेत्युदिताः क्रमात् ।

योक्ता ऽस्माभिः कलासंख्या सा वक्षिणपथे स्थिता ॥१११॥

वार्तिके द्विगुणा ज्ञेया संव चित्रे चतुर्गुणा ।

सर्वजातिषु जानीयादंशस्वरगतं रसम् ॥११२॥

D. Concluding Remarks : 110-115b

(i) General remarks with regard to *jāti-s* : (110-113b)

Wherever not specified, the *tāla* would be threefold, viz. *ekakala* etc.¹ set in the *citra*, *vṛtti* and *dakṣiṇa mārga-s* and the *māgadhi*, *sambhāritā* and *pṛthulā gīti-s* respectively. (110-111b)

The number of *kalā-s* as introduced by us, pertains to the *dakṣiṇa mārga*, which should be known as double in the *vārtika* and quadruple in the *citra*. (111c-112b)

The aesthetic delight (*rāsa*) may be understood to be determined by the fundamental note² in all the *jāti-s*. (112cd)

The elements of the derived *rāga-s* are traced³ by the specialists among the parent *jāti-s*. (113ab)

The author having described the individual characteristic features of the eighteen *jāti-s* is now offering some concluding observations on this topic.

Wherever no specific mention of *tāla* etc. is made in the above description, the author lays down a general rule with respect to *tāla*, *mārga* and *gīti* to be applied in all such cases.

The *prastāra-s* of *jāti-s* have been modelled on *dakṣiṇa mārga*. The author is here laying down the rule for singing in the other *mārga-s* and *gīti-s* as well. If, for example, *ṣaḍjī* has twelve *kalā-s* of eight *laghu-s* each in *dakṣiṇa mārga*, it will have twenty-four *kalā-s* of four *laghu-s* each in *vārtika* and forty-eight *kalā-s* of two *laghu-s* each in *citra mārga*. In any case the time taken by the song is the same.

1. That is, *ekakala*, *dvikala* and *catuṣkala caccatpuṣa*.
2. Such as, *sa* and *ri* as fundamental notes are said to be conducive to heroism and so on.
3. It has been mentioned in some of the *jāti-s* as described above, that such a *rāga* is seen; *varāṅgi* for example is seen in *ṣaḍjī*. *Rāgamā* is defined by 'K' as "an integral part of another *rāga*." Such elements of the other *rāga-s* are seen or perceived in the *jāti-s* because they are derived from them either directly or through the *grāma-rāga-s*.

Dṛṣyante (lit. 'are seen') is interpreted by 'K' as *udbhāvante* which may be rendered as "are intuitively felt."

(ii) जातिगानस्य फलश्रुतिः

ब्रह्मप्रोक्तपदः सम्यक्प्रागुक्ताः शङ्करस्तुतो ॥११३॥

अपि ब्रह्महणं पापाज्जातयः प्रपुनन्त्यमूः ।

ऋचो यजूषि सामानि क्रियन्ते नान्यथा यथा ॥११४॥

तथा सामसमुद्भूता जातयो वेवसंमिताः ।

(ii) The esoteric value and nature of *jāti-gāna* : (113c-115b)

These (*jāti-s*), if properly sung with the verbal texts formerly composed by Brahmā in the eulogy of Lord Śiva (can) redeem even the sin of slaying a brahmin.¹ (113c-114b)

As the hymns of the *Rigveda*, the *Yajurveda* and the *Sāmaveda* are not otherwise uttered (except according to the rules), so also the *jāti-s*² that have originated from the *Sāmaveda* are in conformity with the *veda-s*³ (114-115b)

The author here is trying to bring out the importance and the value of *jāti* songs. In the first instance he points out (vide 113ab) to their historical value from the point of musicology; and this constitutes a perceptible benefit (*dṛṣṭaphala*), since the study and practice of *jāti-s* and their music is helpful in understanding the contemporary *rāga-s* that are derived from them. Secondly, he also points out an imperceptible benefit (*adṛṣṭa-phala*) also, viz. its potency for accruing religious merit and for absolving one from the greatest of sins.

The author is particular in pointing out that by his time *jāti-gāna* (singing of *jāti* songs) had crystallised into unalterable forms, and was cast in rules no longer open to amendment. This may even suggest that *jāti-gāna* was already out of date in his time. That is perhaps why he sanctifies it in association with the vedic hymns as an ancient tradition.

1. Considered to be the greatest of sins; if that can be redeemed through *jāti-gāna*, what else cannot be accomplished.
2. That is, in contravention of the rules or in the violation of their characteristic features described above.
3. The implication is that, it is sinful to sing the *jāti-s* except in the form in which it is ordained by tradition.

It is well known that the vedic hymns are chanted strictly in accordance with the rules for pronouncing the vowels and the consonants in them and with the specific accent, and they cannot be changed in contravention of those rules. Likewise, *jāti-s* are also to be sung according to their rules since they are derived from the *Sāmaveda*; whatever tonal structure, *tāla* and literary text (*pada*) etc. are prescribed for them cannot be violated in *jāti-gāna*.

अथाष्टमं गीतिप्रकरणम्

(i) कपाल-कम्बलगानानि

(क) कपालगानानि

शुद्धजातिसमुद्भूतकपालान्यधुना सुवे ।
रागा जनकजातीनां तत्कपालेषु संमिताः ॥१॥

1. षड्जी-कपालम्

षड्जो ग्रहो ऽंशो ऽपन्यासो गो न्यासो ऽतिबहू गनो ।
अल्पा रिपनिधा लङ्घ्यो रिः, कला द्वादशोदिताः ॥२॥
यस्मिन्षड्जीकपालं तद् गदितं गीतवेदिभिः ।

Section 8

Giti-s

(i) The *kapāla* and the *kambala* songs : 1-14b

(a) The *kapāla-gāna* : (1-10)

Now, I am to describe the *kapāla-s* that have originated from the *śuddhā jāti-s*. The *rāga-s* of the parent *jāti-s* bear a resemblance¹ to their respective *kapāla-s* (1)

(1) *Ṣaḍjī-kapāla*

Ṣaḍjī-kapāla is declared by the experts² to be that in which the initial, the fundamental and the semifinal note is *ṣaḍja* and the final note is *gāndhāra*; *gāndhāra* and *madhyama* are very profuse, *ṛṣabha*, *pañcama*, *niṣāda* and *dhaivata* are rare, *ṛṣabha* is to be overstepped and the *kalā-s* are said to be twelve. (2-3b)

1. 'K' interprets 'sammitāḥ' of text as "śaḍjīśākhārāḥ pratyante", i. e. they appear to be similar in form.
2. *Gītavedi* literally would mean those who are the masters of vocal music, but it seems to be used in a wider sense.

2. आर्षभी-कपालम्

यत्रर्षभो ऽंशो ऽपन्यासो मो ऽन्तो गनिपधाल्पता ॥३॥
सो ऽत्यल्पो ऽष्टकलं तत्स्यात्कपालं त्वार्षभोगतम् ।

3. गान्धारी-कपालम्

मध्यमो ऽंशो ग्रहो न्यासो ऽपन्यासो धैवतो बहुः ॥४॥
यत्राल्पाः सरिगा लोपाद्रिपयोरीडुवं भवेत् ।
तद्गान्धारीकपालं स्यात्कलाऽष्टकविनिर्मितम् ॥५॥

4. मध्यमा-कपालम्

मध्यमो ऽंशो निरिगपाः स्वल्पा यत्र कला नव ।
तन्मध्यमाकपालं स्यादिति निःशङ्कसम्मतम् ॥६॥

5. पञ्चमो-कपालम्

ऋषभांशं सग्रहं च निधषड्जगमात्पकम् ।
कपालं पञ्चमीजातिजातमष्टकलं विदुः ॥७॥

(2) Ārṣabhī-kapāla

The *kapāla* in which the fundamental and the semifinal note is *ṛṣabha*, the final note is *madhyama*, and *gāndhāra*, *niṣāda*, *pañcama* and *dhaivata* are rare, *ṣaḍja* is very rare and that which has eight *kalā-s* is related to *ārṣabhī*. 3c-4b)

(3) Gāndhārī-kapāla

Where the fundamental, the initial, the final and the semifinal note is *madhyama*; *dhaivata* is profuse, *ṣaḍja*, *ṛṣabha* and *gāndhāra* are rare, the pentatone is formed by the elimination of *ṛṣabha* and *pañcama*, that is *gāndhārī-kapāla* composed of eight *kalā-s*. (4c-5)

(4) Madhyamā-kapāla

In the view of Śārṅgadeva, the *madhyamā kapāla* is that which has *madhyama* as the fundamental note, where *niṣāda*, *ṛṣabha*, *gāndhāra* and *pañcama* are quite rare and where the *kalā-s* are nine. (6)

6. धैवती-कपालम्

अत्यल्पर्षभगान्धारं पन्यासं मधभूरि च ।
षाड्ज्या इव कपालं तद्वैवत्याः सकलाऽष्टकम् ॥८॥

7. नैषादी-कपालम्

ग्रहांशन्यासषड्जं च रिगात्पमतिभूरिभिः ।
निधमैरष्टकलकं स्यान्नैषादीकपालकम् ॥९॥

8. कपालगानफलम्

इति सप्त कपालानि गन्यग्रहोदितैः पदैः ।
स्वरैश्च पार्वतीकान्तस्तुतौ कल्याणभागभवेत् ॥१०॥

(5) Pañcamī-kapāla

The *kapāla* with *ṛṣabha* as the fundamental note, *ṣaḍja* as the initial note, *niṣāda*, *ṣaḍja*, *gāndhāra* and *pañcama* as the rare notes and having eight *kalā-s* is known to be derived from *pañcamī jāti*. (7)

(6) Dhāivatī-kapāla

The *kapāla* with very rare *ṛṣabha* and *gāndhāra*, with *pañcama* as the final note, and with profuse *madhyama* and *dhaivata*, which is like *ṣaḍjī* (in other respects) and has eight *kalā-s* belongs to *dhaivatī*. (8)

(7) Naiṣādi-kapāla

The *kapāla* pertaining to *naiṣādi* has *ṣaḍja* for its initial, fundamental and the final note, rare *ṛṣabha* and *gāndhāra*, very profuse *niṣāda*, *dhaivata* and *madhyama* and eight *kalā-s*. (9)

(8) The value of *kapāla-gāna*

Thus, singing (these) seven *kapāla* songs as composed in verse and set to tune by Brahmā in the eulogy of Lord Śiva³ one attains the supreme good⁴. (10)

3. Lit. the consort of Pārvatī.

4. *Kalyāṇa* lit. means good fortune, prosperity, happiness, good and so on. Incidentally, it indicates worldly prosperity and spiritual good as the reward for singing *kapāla* songs.

(ख) कम्बलगानम्

यत्र ग्रहो ऽंशो ऽन्यासः पञ्चमो बहुलस्तु रिः ।
 सो न्यासो मधगान्धारास्त्वल्पास्तत्कम्बलं मतम् ॥११॥
 पञ्चमीजातिसञ्जातमल्पताबहुतावशात् ।
 स्वराणां बहवो भेदास्तस्य पूर्वैरुदीरिताः ॥१२॥
 प्रीतः कम्बलगानेन कम्बलाय वरं ददौ ।
 पुरा पुरारिरद्यापि श्रीयते तेरतः शिवः ॥१३॥

(ग) कपालगतपदानि

कपालानां क्रमाद् भूमो ब्रह्मप्रोक्तां पदावलीम् ।

झण्टुं झण्टुं ॥१॥ खट्वाङ्गधरं ॥२॥ दंष्ट्राकरालं ॥३॥

(b) *Kambala-gāna* : (11-13)

Where the initial note, the fundamental note and the semifinal note is *pañcama*, *ṣabha* is profuse, *śaṭja* is the final note and *madhyama*, *dhāivata* and *gāndhāra* are rare, that is accepted to be *kambala*. It has originated from the *pañcamī jāti*. The ancients have spoken of many of its varieties based on the rareness and the profusion of notes. (11-12)

Sometimes in the past Lord Śiva, being propitiated by the *kambala* (song) bestowed a boon upon *kambala*⁵ (*nāga*), and therefore even today, he is propitiated by them (i. e. the *kambala*-songs). (13)

(c) The verbal text of the *kapāla* songs : (1-4b)

We shall now speak of the verbal text of the *kapāla* songs as originated⁶ in due order. (1-4b)

1. The *śāḍjī-kapāla* song

*Jhaṅṭum jhaṅṭum*⁷ (1) *khaṭvāṅgadharam* (2) *daṁṣṭrākarālam*

5. Cf. S. Raj, Vol. I, p. 659 for greater information regarding *Kambala*
 6. *Brahmaprokta* lit. 'spoken or sung by Brahmā' who composed them
 7. *Jhaṅṭum* is one of the *śuśkakṣara-s* (syllables devoid of meaning said to have been spoken by Brahmā. These meaningless

तडित्सदृशजिह्वं ॥४॥ हौ हो ही ही ही ही ही ही ॥५॥ बहुरूपवदनं
 घनघोरनादं ॥६॥ हौ ही ही ही ही ही ही ही ॥७॥ ऊं ऊं ह्रां
 रौ ह्रौ ह्रौ ह्रौ ॥८॥ नृमुण्डमण्डितम् ॥९॥ ह्रं ह्रं कह कह ह्रं ह्रं
 ॥१०॥ कृतविकटमुखम् ॥११॥ नमामि देवं भैरवम् ॥१२॥ इति
 षाड्जीकपालपदानि ॥१॥

झण्टुं झण्टुं खट्वाङ्गधरम् ॥१॥ दंष्ट्राकरालम् ॥२॥ तडित्स-
 दृशजिह्वम् ॥३॥ हौ ही ही ही ही ही ही ही ॥४॥ वरसुरभि-
 कुसुम ॥५॥ चर्चितगात्रम् ॥६॥ कपालहस्तम् ॥७॥ नमामि देवम्
 ॥८॥ इत्यार्षभोकपालपदानि ॥२॥

taḍitsadṛśajihvam (4) *hau hau hau hau hau hau hau hau* (5) *bahurūpavadanam ghanaghoranādam* (6) *hau hau hau hau hau hau hau*
hau (7) *ūh ūh hrān raun haun haun haun haun* (8) *nṛmuṇḍamanditam*
 (9) *hūn hūn kaha kaha hūn hūn* (10) *kṛtavikaṭamukham* (11)
namāmi devam bhairavam.⁸ (12)

2. The *arṣabhī-kapāla* song

Jhaṅṭum jhaṅṭum khaṭvāṅgadharam (1) *daṁṣṭrākarālam* (2)
taḍitsadṛśajihvam (3) *hau hau hau hau hau hau hau hau* (4) *varasurabhikusuma* (5) *carcitagātram* (6) *kapālahastam* (7) *namāmi devam*⁹
 (8).

syllables form a part of an ancient tradition and even Bharata mentions them at various places (cf. G. O. S. Vol. IV, pp. 107, 108, 112, 118, etc. and XXXIV. 32). All such words are recounted by Śarāgadeva in *Taladhya* (cf. S. R., Ad. ed. Vol. III, p. 129). These are also called *stobhākṣara-s*. *Ōṅkara* and *h* in conjunction with vowels or consonants is also included among the *stobhākṣara-s* (cf. Brihaspati, *Bharat ka Saṅgī Siddhānta* pp. 251, 252).

8. The Sanskrit text purports as under :

Obeisance to Lord Bhairava, holding a club with a skull on the top and having terrific teeth, a tongue resembling lightning, a face with many forms and a tumultuous sound, who is decorated by human skulls and bears a terrible countenance.

9. The Sanskrit text purports as under :

Obeisance to the Lord holding a club with a skull on the top, and having terrific teeth and a tongue resembling lightning, whose body is anointed with the best of the fragrant flowers and who bears a skull in his hand.

चलत्तरङ्ग ॥१॥ भङ्गुरम् ॥२॥ अनेकरेणु ॥३॥ पिञ्जरं
सु ॥४॥ रासुरः सुसेवितं पु ॥५॥ नातु जाह्न ॥६॥ वीजलम्
मां बिन्दुभिः ॥७॥ इति गान्धारीकपालपदानि ॥३॥

शूलकपाल ॥१॥ पाणित्रिपुरविनाशि ॥२॥ शशाङ्कधारिणम्
॥३॥ त्रिनयनत्रिशूलम् ॥४॥ सततमुमया सहि ॥५॥ तं वरदम्
॥६॥ हौ हौ हौ हौ हौ हौ हौ ॥७॥ हौ हौ हौ हौ हौ हौ हौ
॥८॥ नौमि महादेवम् ॥९॥ इति मध्यमाकपालपदानि ॥४॥

जय विषमनयन ॥१॥ मदनतनुदहन ॥२॥ वरवृषभगमन
॥३॥ त्रिपुरदहन ॥४॥ नतसकलभुवन ॥५॥ सितकमलवदन
॥६॥ भव मे भयहरण ॥७॥ भवशरणम् ॥८॥ इति पञ्चमी-
कपालपदानि ॥५॥

3. The gāndhārī-kapāla song

Calattaraṅga (1) *bhaṅguram* (2) *anekareṇu* (3) *piñjaram*
su (4) *rāsuraḥ susevitam pu* (5) *nātu jāhna* (6) *vījalam* (7) *mām*
*bindubhiḥ*¹⁰ (8).

4. The madhyamā-kapāla song

Śulakapāla (1) *pāṅitripuravināsi* (2) *śaśāṅkadhāriṇam* (3)
trinayanatrisūlam (4) *satatamumayā sahi* (5) *tam varadam* (5)
hau hau hau hau hau hau hau hau (7) *hau hau hau hau hau hau*
hau hau (8) *naumi mahādevam*¹¹ (9).

5. The pañcamī-kapāla song

Jaya viṣamanayana (1) *madanatanudahana* (2) *varavṛṣabha-*

10. The Sanskrit text purports as under :

Let the water of the Ganges, tremulous with the moving waves, tawny with the innumerable particles of sand and partaken by gods as well as demons, purify me with its drops.

11. The Sanskrit text purports as under :

Obeisance to Mahādeva (the great God) who holds a spear with a skull on the top in his hand, who destroyed Tripura and who bears the crescent of the moon, whose three eyes are his tridents, who is always in the company of Umā and who is benevolent.

अग्निज्वाला ॥१॥ शिखावली ॥२॥ मांसशोणित ॥३॥
भोजिनि ॥ सर्वाहारि ॥५॥ णि निर्मासि ॥६॥ चर्ममुण्डे ॥७॥
नमोऽस्तु ते ॥८॥ इति धैवतीकपालपदानि ॥६॥

सरसग चर्मपटम् ॥१॥ भीमभुजंगमानद्वजटम् ॥२॥ कह-
कहङ्कृतिविकृतमुखम् ॥३॥ नम तं शिवं हरमजितम् ॥४॥ चण्ड-
तुण्डमजेयम् ॥५॥ कपालमण्डितमुकुटम् ॥६॥ कामदर्पविध्वंसकरम्
॥७॥ नम तं हरं पर-शिवम् ॥८॥ इति नैषादीकपालपदानि ॥७॥
इति सप्त कपालपदानि ॥

gamana (3) *tripuradahana* (4) *natasukalabhuvana* (5) *sitakamala-*
vadana (6) *bhava me bhayaharaṇa* (7) *bhavaśaraṇam*¹² (8).

6. The dhāvati-kapāla song

Agnipāla (1) *śikhāvalī* (2) *māmsaṣoṇita* (3) *bhojini* (4)
sarvāhāri (5) *ṇi nirmāse* (6) *carmamuṇḍe* (7) *namo-astu te*¹³ (8)

7. The naiṣādi-kapāla song

Sarasagajacarmapaṭam (1) *bhīmabhujaṅgamānaddhajaṭam*
(2) *kahakahuṅkṛtīvikṛtamukham* (3) *nama tam śivam haramajitam*
(4) *caṇḍatuṇḍamajeyam* (5) *kapālamaṇḍitamukuṭam* (6) *kāmadar-*
pavidhvamsakaram (7) *nama tam haram paramaśivam*¹⁴ (8).

12. The Sanskrit text purports as under :

Victory, O! the three eyed one (Śiva), the burner of cupid's body, the rider of the bull, the destroyer of Tripura, saluted by all the worlds, having a white lotus face, liberator from the phenomenal involvement (thou) be my shelter.

13. The Sanskrit text purports as under :

O! the fleshless Carmamuṇḍa (Durgā), the incessant succession of the flames of blazing fire, the devourer of flesh and blood, the destroyer of all, salutation to you.

14. The Sanskrit text purports as under :

Make obeisance to that benevolent unconquered Hara (Śiva), who is attired in a fresh elephant hide, who has braided his hair with a huge snake and has disfigured his countenance by the *huṅkṛti* (nasal pronunciation) of (the sound) *kaha kaha* : make obeisance to that supremely benevolent Hara, who is (like) the fierce dart, invincible, bearing the crown of skulls, and the destroyer of cupid's pride.

The word *kapāla* literally means the skull bone, a piece of a broken jar, a beggar's bowl, a cup, a jar, etc. Kallinātha explains this name with reference to the first two meanings. Technically, *kapāla* is a modification of a *śuddhā jāti* from which it is derived. It has the characteristic feature of reflecting the *rāga* as derived from its parent *jāti*, because it bears a close resemblance to it in form. In a way if a *jāti* can be said to be a melodic type giving rise to many *rāga-s*, *kapāla* is a cross section of a particular *jāti* that embodies the sectional features of a particular derived *rāga*. Therefore, *kapāla* is explained by 'K' firstly on the analogy of a broken jar which points out to the jar. Secondly, he relates a mythical story: "Once Lord Śiva, while he wandered as a mendicant, was singing in *śaḍjī* etc. and he was so blissfully absorbed in it that the crescent of the moon on his forehead melted releasing nectar, drinking which the skulls (*kapāla-s*) of Brahmā that he was carrying fastened together in a garland around his neck came to life and began to sing along with him; that is why these songs are called *kapāla-s*."

There are seven *śuddhā jāti-s* and correspondingly there are seven *kapāla* songs. Though the chapter is entitled '*Gīti-s*' in accordance with the synopsis (see Section 1) the *Kapāla* and the *Kambala* songs are dealt with to begin with. >

(ii) गीतिलक्षणं, तद्भेदाश्च

वर्णद्वयलङ्कृता गानक्रिया पदलयान्विता ॥१४॥

गीतिरित्युच्यते सा च बुधेरुक्ता चतुर्विधा ।

मागधी प्रथमा ज्ञेया द्वितीया चार्धमागधी ॥१५॥

संभाविता च पृथुलेत्येतासां लक्ष्म चक्ष्महे ।

1. मागधी गीतिः

गीत्वा कलायामाद्यायां विलम्बितलयं पदम् ॥१६॥

द्वितीयायां मध्यलयं तत्पदान्तरसंयुतम् ।

सतृतीयपदे ते च तृतीयस्यां द्रुते लये ॥१७॥

इति त्रिरावृत्तपदां मागधीं जगदुर्बुधाः ।

(ii) The definition and classification of *gīti-s*: 14c-25

The act of singing¹ embellished by (various) patterns of tonal movement (*varṇa*) etc.², and couched in verbal phrases³ set in musical speed (tempo)⁴, is called *gīti*. It is said to be fourfold by the enlightened ones⁵. The first is known to be *māgadhī*, the second is *ardha-māgadhī*, (the third is) *sambhāvītā* and (the fourth is) *pṛthulā*. We shall describe their characteristic features. (14c-16b)

1. Māgadhī

Having sung a verbal phrase (*pada*) in the first *kalā* in the slow tempo, and then in the second⁶ the same⁷ along with another phrase in the middle tempo, if in the third they⁸ are sung along with the third phrase in the fast tempo, such (a *gīti*) that thrice repeats a verbal phrase⁹ is called *māgadhī* by the enlightened ones¹⁰. (16c-18b)

The *jāti* songs are meant to be sung in particular *gīti-s*, so the author now introduces this topic and gives first of all a general definition of *gīti* and then goes on to define their particular forms.

Gīti is defined primarily to be a *gāna-kriyā*, 'the act of singing' which is moulded and shaped through the use of particular patterns of tonal movement such as ascending, descending, stable and circulatory (i.e. *ārohi*, *avarohi*, *sthāyi* and *sañcāri varṇa-s*) and is enriched

1. *Gāna-kriyā* in this context is restricted in its connotation to mean an act of singing.
2. The suffix *ādi* (etc.) is meant to include, according to 'K', the sixty-three *alāṅkāra-s* spoken of in Section 6 ante, such as *prasannādi* and so on.
3. *Pada*, in this context, is a meaningful word with grammatical terminations. Thus, a *pada* is not only a word, since it also is qualified to indicate a relation. *Pada* is therefore more than a word and yet not a sentence. As such, it has been translated as a verbal phrase to distinguish it from a tonal phrase. Technically, *pada* signifies the verbal structure of melody.
4. *Laya* is tempo, i. e. relative musical speed.
5. This refers to the earlier teachers of the subject.
6. The second *kalā*.
7. The phrase of the first *kalā*.
8. That is, the phrases of the first two *kalā-s*.
9. Viz. *devam*.
10. The ancient authorities of *saṅgīta-śāstra*.

यथा—

| | | | |
|------|--------|-----|------|
| मा | गा | मा | धा |
| दे | | वं | |
| धनि | धनि | सनि | धा |
| दे | वं | रु | द्रं |
| रिग | रिग | मग | रिस |
| देवं | रुद्रं | वं | दे |

2. अर्धमागधी गीतिः

पूर्वयोः पदयोरर्धे चरमे द्विर्यदोदिते ॥१८॥

तदा स्वर्णमागधीं प्राहुः

For example :

| | | | | |
|-------|--------|--------|-------|-------|
| (i) | mā | gā | mā | dhā |
| | De | | vam | |
| (ii) | dha-ni | dha-ni | sa-ni | dhā |
| | de | vam | ru | dram |
| (iii) | ri-ga | ri-ga | ma-ga | ri-sa |
| | devam | rudram | van | de |

2. *Ardha-māgadhi*

When the latter half of the previous¹¹ *pada-s* (verbal phrases) is sung twice, then it is called *ardha-māgadhi*¹².

(18c-19a)

by certain tonal phrases (*alāṅkāra-s*). Furthermore, such melodic activity is accompanied by literary composition and is set in rhythmic patterns of musical speed. *Laya* (musical speed) is known to be threefold, viz. fast tempo (*druta*), middle tempo (*madhya*) and slow tempo (*vilambita*), (14c-16b)

It has been said that there are four *giti-s* and here, the author is describing the specific characteristics of each. It may, however, be

11. That is, the *pada-s* of the first and the second *kalā-s*.

12. Literally, half-way *māgadhi*.

यथा—

| | | | |
|------|----|------|----|
| मा | री | गा | सा |
| दे | | वं | |
| सा | सा | धा | नी |
| वं | रु | द्रं | |
| पा | धा | पा | मा |
| द्रं | वं | दे | |

द्विरावृत्तपदां परे ।

यथा—

| | | | |
|----|------|----|------|
| मा | मा | मा | मा |
| दे | | वं | |
| धा | सा | धा | नी |
| दे | वं | रु | द्रं |
| पा | निध | मा | मा |
| रु | द्रं | वं | दे |

For example :

| | | | | |
|-------|------|-----|------|----|
| (i) | mā | ri | gā | sā |
| | De | | vam | |
| (ii) | sā | sā | dhā | ni |
| | vam | ru | dram | |
| (iii) | pā | dhā | pā | mā |
| | dram | van | de | |

Others, (however) consider it to consist in once repeated *pada-s*¹³ (verbal phrases). (19b)

For example :

| | | | | |
|-------|-----|--------|-----|------|
| (i) | mā | mā | mā | mā |
| | De | | vam | |
| (ii) | dhā | sā | dhā | ni |
| | de | vam | ru | dram |
| (iii) | pā | ni-dha | mā | mā |
| | ru | dram | van | de |

13. *Dvirāvṛttapada*, lit. "the one that has its *pada-s* (sung) twice."

3. सम्भाविता गीतिः

संक्षेपितपदा भूरिगुहः संभाविता मता ॥१९॥

यथा—

| | | | | |
|----|----|--------|----|---|
| धा | मा | मा | रि | ग |
| भ | | क्त्या | | |
| री | गा | सा | सा | |
| दे | | वं | | |
| नी | धा | सा | नी | |
| रु | | द्रं | | |
| धा | नी | मा | मा | |
| वं | | दे | | |

3. Sambhāvita :

Sambhāvita is considered to be with abridged verbal phrases (*pada-s*) largely¹⁴ (composed) of long syllables. (19cd)

For example :

| | | | | |
|-------|------------|-----|-------------|---------------------|
| (i) | dhā | mā | mā | ri-ga ¹⁴ |
| | <i>Bha</i> | | <i>kyā</i> | |
| (ii) | rī | gā | sā | sā |
| | <i>de</i> | | <i>vam</i> | |
| (iii) | nī | dhā | sā | nī |
| | <i>ru</i> | | <i>dram</i> | |
| (iv) | dhā | nī | mā | mā |
| | <i>van</i> | | <i>de</i> | |

observed that the fourfold *giti* that is described here is, what is called *padāśrita giti* (i. e. the *giti* based on the verbal structure) which may be distinguished from *talāśrita giti* (i. e. the *giti* based on *talā*) and *svārāśrita-giti* (i. e. the *giti* based on the tonal structure). The first two will be dealt with shortly in this Section and the last in Chapter II (*Rāga*).

The *māgadhi giti* came into being in the province of Magadha in eastern India and is therefore called *māgadhi* as explained by 'K' on the basis of the derivation of the word given by Mataṅga. *Māgadhi*

14. That is, it also admits the use of short syllables.

15. Ad. ed. of S. R. reads : *ri ga* (as two *mātrā-s*) which seems to be a misprint.

4. पृथुला गीतिः

भूरिलघ्वक्षरपदा पृथुला संमता सताम् ।

यथा—

| | | | |
|-----|------|----|----|
| मा | गा | री | गा |
| सु | र | न | त |
| सा | धनि | धा | धा |
| ह | र | प | द |
| धा | सा | धा | नी |
| यु | ग | लं | |
| पा | निघप | मा | मा |
| प्र | ण | म | त |

4. Pṛthulā :

Pṛthulā, according to the learned, has verbal phrases (*pada-s*) with many short syllables. (20ab)

For example :

| | | | | |
|-------|------------|-----------|------------|-----------|
| (i) | mā | gā | rī | gā |
| | <i>su</i> | <i>ra</i> | <i>na</i> | <i>ta</i> |
| (ii) | Sā | dha-ni | dhā | dhā |
| | <i>ha</i> | <i>ra</i> | <i>pa</i> | <i>da</i> |
| (iii) | dhā | sā | dhā | nī |
| | <i>yu</i> | <i>ga</i> | <i>lam</i> | |
| (iv) | pā | ni-dha-pa | mā | mā |
| | <i>pra</i> | <i>ṇa</i> | <i>ma</i> | <i>ta</i> |

and other *giti-s* are illustrated by the author with an example in which each *kalā* is supposed to be of four *mātrā-s* (units). This is elucidated below in the light of Kallinātha's commentary.

The first *kalā* is to be sung in the slow tempo, which indicates the rest period ratio of 4:1 with reference to the fast tempo in singing a verbal phrase (*pada*). In the given example the phrase *devam* is sung in the first *kalā* in two syllables, *de* and *vam*, each of which takes two unit measures (*mātrā-s*). In the second *kalā* the phrase *rudram* is added to the first one (viz. *devam*) in two syllables,

5. तालाश्रिता गीतयः

यदा यथाऽक्षरे युग्मे गुर्वोः प्रथमयोर्यदा ॥२०॥
 एकैकं चित्रमार्गाहं प्रयुज्य चगणात्मकम् ।
 मात्राभिरष्टभिर्युक्तं दक्षिणे ध्रुवकादिऽदिभिः ॥२१॥
 प्रयुज्यते तदा गीतिर्मागधीत्यभिधीयते ।
 तृतीयं लघु युगस्य च्छगणार्धयुतं यदा ॥२२॥
 आद्याभ्यामन्तिमाभ्यां च मात्राभ्यां संप्रयुज्यते ।
 ततः प्लुतं सार्धगणयुक्तं कृत्वा प्रयुज्यते ॥२३॥
 ध्रुवकाऽऽदिभिरष्टाभिर्द्विरुक्तान्त्यद्वयेन च ।
 तदा ऽर्धमागधी ते द्वे तद्वत्तालान्तरेष्वपि ॥२४॥
 संभाविता भूरिगुरुद्वकले वार्तिके पथि ।
 चतुष्कले भूरिलघुर्दक्षिणे पृथुला मता ॥२५॥

इति प्रथमे स्वरगताध्यायेऽष्टमं गीतिप्रकरणम् ॥६॥

इति श्रीमदनवद्य-विद्याविनोद-श्रीकरणाधिपति-श्रीसोढलदेवनन्दन-
 निःशङ्कशोशाङ्गदेव-विरचिते संगीतरत्नाकरे स्वरगताध्यायः प्रथमः ।

5. Giti-s based on tāla :

Alternatively, if the initial two *guru-s* of the namewise (*yathākṣara*) *caccatpuṣa*¹⁶ (*tāla*), having been employed one by one in the *citra mārga*¹⁷, are converted into *ca-gaṇa*¹⁸ and *ru* and *dram*. Thus, the phrase *devam* is sung for the second time and the four syllables are sung in four *mātrā-s* (units). The number of notes taken in one *mātrā* (unit), whether one or two, is immaterial. In the third *kālā* the first and the second phrases are sung along with the additional third, viz. *vande* which is split into two syllables, *van* and *de*. Thus, the first *mātrā* of the third *kālā* is sung with the phrase *devam*, the second with *rudram* and the third and the fourth with the syllables *van* and *de* making for the phrase *vande*. The third *kālā* being in the fast

16. *Yugma* is *caccatpuṣa*.

17. *Citrāmārgārham* seems to be the reading of the text available to 'K' as it is evident from his commentary which is supported also by the interpretation presented by 'S'. The Ad. ed. of S. R. reads *citrāmārgādi* which does not grammatically fit in the verse to be adequately meaningful.

18. That is, each *guru* to be sung in four *mātrā-s* by the *vārtika mārga*.

then being provided with eight *mātrā-s* (units) are employed in the *dakṣiṇa mārga* with *dhruvaka*¹⁹, etc. then the *giti* is called *māgadhi*. (20c-22b)

When, the third *laghu* of the *caccatpuṣa*²⁰ (*tāla*) is augmented by half the *cha-gaṇa*²¹ and is used with the initial

tempo is the quickest in action as well as rest with reference to the first and the second. Also in the third *kālā* the phrase *devam* is sung for the third time. In this way, because in this *giti* a phrase is sung for three times, it is called *trirāvṛttapada*. (16c-18b)

Ardha-māgadhi is obviously a modification of *māgadhi*. When the second half of the first two phrases respectively is repeated successively in the second and the third *kālā-s* of *māgadhi*, it becomes *ardha-māgadhi*. The process of its formation is illustrated by an example according to which the first *kālā* is like that of *māgadhi* with the phrase : *Devam* (*de+vam*); in the second *kālā* the phrase is *rudram* (*ru+vam*); which is preceded by the second half of the the phrase of the first *kālā*, viz. *vam*, reading on the whole as *vam rudram*. Similarly, in the third *kālā* the phrase is *vande* (*vam+de*) which is preceded by the second half of phrase of the second *kālā*, viz. *dram*, reading on the whole as *dram vande*.

However, the author quotes another opinion as well. In this view, just as *māgadhi* is called *trirāvṛtta*, i. e. the one in which a *pada* (phrase) is sung thrice, so *ardha-māgadhi* is *dvirāvṛtta*, i. e. the one in which the two *pada-s* (phrases of the 1st and the 2nd *kālā-s*) are sung twice. Accordingly *devam* is repeated in the second *kālā* and *rudram* is repeated in the third *kālā*. However, 'K' points out that according to Mataṅga, some consider the twice-repeated phrases also to be characteristic of *māgadhi*. (18c-19b)

Sambhāvita is said to have abridged phrases, by which it is meant that the *pada-s* used are few and far between. Moreover, they consist of long syllables : a syllable is considered to be grammatically long

19. *Dhruvaka*, *sarpinī*, *patitā*, etc. are the names of the actions of hand to be explained in Chapter V. But 'K' gives, the following as pertaining to the three steps spoken of above.

1st step : *Dhruvaka* and *patitā*

2nd step : *Dhruvaka*, *sarpinī patākā* and *patitā*

3rd step : *Dhruvaka*, *sarpinī*, *kr̥ṣyā*, *padmīnī*, *visarjitā*, *vikṣiptā*, *patākā* and *patitā*.

20. *Yathākṣara* is understood.

21. That means, three *mātrā-s*.

two and the last two *mātrās*²² and if, after that, the *pluta* (extra long) is augmented by one and half the (said) *gaṇa*²³ and is used with the eight *mātrā-s* such as *dhruvakā* and so on²⁴, twice repeating the last two of them²⁵, then it is *ardhamāgadhī*. (22c-24c)

when it implies twice the effort necessary for pronouncing a short vowel or a consonant with it. There are quite a few conditions that determine this measure of effort which need not be related here. To understand the given example, however, in the first *kalā* of four *mātrā-s* (units) and five notes only two syllables are taken, viz. *Bha*, which is long in view of the succeeding conjunct and *ktyā* which is long by itself. The other *kalā-s* are similarly fashioned.

Here, it may be observed that 'S' seems to have a different reading of the portion 19b which leads him to take it as a part of the definition of *sambhāvita*, rather than that of *ardhamāgadhī* as taken in our text as well as by 'K'. Indeed the text-variant of *dviravṣṭapadam pare* is recorded in the foot note of the Adyar edition as *dviravṣṭapadāntare* which means: "the one in which a phrase (*pada*) is sung in the following phrase for the second time" and which is taken by 'S' to be qualifying *sambhāvita*. (19cd).

Prthulā is in contrast with *sambhāvita*; whereas the latter has abridged *pada-s* with long syllables, the former has many *pada-s* with short syllables. That is perhaps why *Mataṅga* derives *sambhāvita* as that in which the abridgement of *pada-s* is expected (*sambhāvayate*) and *prthulā* as that which is enlarged upon profusion of *pada-s*; for, *prthulā* literally means large or broad. (20ab).

Having described the four types of *giti-s* based on *pada* (verbal phrases), the author describes them as based on *tāla*; and thus, he deals with *tālāśrita-giti*.

Detailed information regarding *tāla* is to be found in the *Tālādhyāya*, i. e. Chapter V, but here it is necessary to observe a few things. The three types of *caccatpuṭa*; viz. *ekakala*, *dvikala* and *catuṣkala*

22. The initial two are *dhruvakā* and *śarpīṇī* and the last two are *patākā* and *patitā*.
23. That means, nine *mātrā-s*.
24. The eight *mātrā-s* of *caccatpuṭa*, i. e. from *dhruvakā* to *patitā*.
25. In order to occupy the last four (9-12) *mātrā-s*.
 - This is based on the references of 'K' in his commentary on the above text.

These²⁶ two may also similarly (be conceived) in other²⁷ *tāla-s*. (24c-24d)

Sambhāvita is accepted to be with many long syllables in the *dvikala* (*caccatpuṭa*) by the *vārtika mārga* and *prthulā* is with many short syllables in the *catuṣkala* (*caccatpuṭa*) by the *dakṣiṇa mārga*. (25)

Here ends Chapter I of *saṅgīta-ratnākara* entitled "Treatment of *svāra*" composed by Śārṅgadeva who is free from doubt, the son of Śrī Soḍhaladeva, the faultless reveller of scholarship and the master treasurer.

have already been mentioned. Of these the first one is called *yathākṣara* which corresponds in terms of unit measures (*mātrās*) to those indicated by its name, and that is why it is said to be namewise (*yathākṣara*); and its measure is two *guru-s* followed by a *laghu* and a *pluta* making in all, eight *mātrā-s*.

Laghu has already been explained as the duration of time required for pronouncing five short syllables; or, as it is alternatively expressed, the duration of time taken by the winking of eyes for five times. Two *laghu-s* make for one *guru*. Three *laghu-s* constitute a *pluta*.

The *laghu* is written as (l), the *guru* as (s), and the *pluta* as (s') and the last letter of *caccatpuṭaḥ*, viz. *ṣaḥ* is *pluta*. So, now it will be seen that the namewise (*yathākṣara*) *caccatpuṭa* is written SSIS' and has eight *mātrā-s*. *Mātrā* is another expression for *laghu*.

Reverting to the text, the first two *guru-s* have the value of two *mātrā-s* each and as such they should, in *māgadhī*, be sung in the *citra mārga* in the *ekakala caccatpuṭa*. *Ca-gaṇa*, as it will be described in greater detail in Chapter IV, viz. *Prabandhādhyāya*, is a grouping of four *mātrā-s*. So, the second step is to enlarge upon the two initial *guru-s* so as to enhance their value to four *mātrā-s* each, and thus sing the *pada* as *dvikala* by *vārtika mārga*. The third step is to enhance the value of each of the two initial *guru-s* to eight *mātrā-s* and sing by *dakṣiṇa mārga* in *catuṣkala caccatpuṭa*. Thus, the essential feature is the repetition of the initial two *guru-s* as required by the expression "triravṣṭapada" and so on. The second step, as described above, is implicit as pointed out by 'K'. (20c-22b)

26. *Māgadhī* and *ardhamāgadhī*,
27. Such as *pañcapāṇī* and so on.

Ardha-māgadhi distinguishes itself from *māgadhi* in so far as it is more concerned with the latter part of the namewise (*yathākṣara*) *caccatpuṣa tāla*, viz. with the third *laghu* and the fourth *pluta* (extra long) out of its four *mātrā-s*, viz. *SSIS'* (*guru, guru, laghu* and *pluta*).

What is suggested is that, in order to formulate *ardha-māgadhi*, the third *mātrā* of the *yathākṣara caccatpuṣa*, which is *laghu*, be augmented with half of *cha-gaṇa*, i. e. three *mātrā-s*; that is, its value should be increased from one *laghu* to four (*mātrās*). And then having thus increased its value to four *mātrā-s* it may be sung with the initial two and the last two (of the eight) *mātrā-s* of *caccatpuṣa*, viz. *dhruvaka* and *sarpini* and *patāka* and *patitā* respectively. This forms the first step as it were.

In the second step the *pluta* that is following the *laghu* is required to be augmented by one and half the *cha-gaṇa*. *Cha-gaṇa* is a grouping of six *mātrā-s*. So, to the three *mātrā-s* of *pluta*, nine more are added, making twelve in all. Of these twelve *mātrā-s*, the first eight are sung with the eight *mātrā-s* of *caccatpuṣa* in due order, and the last four by repeating the last two *mātrā-s* twice in due order, i. e. with *patāka*, *patitā*, *patāka* and *patitā*. This process forms *ardha-māgadhi* as based on *tāla*.

Sambhāvita and *pīthula* are conceived on the same lines except that the former is set in *dvikāla* and the latter in the *catuṣkāla caccatpuṣa*.

This ends the Section on *giti-s* and also Chapter One constituting Volume I entitled the *Svaragatādhyāya*.

The End

APPENDIX I

PARALLEL REFERENCES FROM CARAKA AND SUŚRUTA IN THE CONTEXT OF HUMAN EMBODIMENT (PIṆDOTPATTI)

Saṅgīta—
ratnākara

Caraka &
Suśruta

- I.2.23-25 स सर्वगुणवान् गर्भत्वमापन्नः प्रथमे मासि सम्मूर्च्छितः Caraka Śā.
सर्वधातुकलनीकृतः खेटभूतो भवत्यव्यक्तविग्रहः Sthā 4.9-11
सदसद्भूताङ्गावयवः । ४।६
द्वितीये मासि घनः सम्पद्यते—पिण्डः पेश्यर्बुदं वा, तत्र
पिण्डः पुरुषः, स्त्री पेशी, अर्बुदं नपुंसकम् । ४।१०
तृतीये मासि सर्वेन्द्रियाणि सर्वाङ्गावयवाश्च योग-
पद्येनाभिनवन्ते । ४।११
तत्र प्रथमे मासि कललं जायते । ३।१८ Suśruta,
द्वितीये शोतोष्मानिलं रभिप्रपच्यमानानां महाभूतानां Śā. Sthā
संघातो घनः संजायते; यदि पिण्डः पुमान्, स्त्री चेत् 3. 18-21
पेशी नपुंसकं चेदर्बुदमिति । ३।१९
तृतीये हस्तपादशिरसां पञ्च पिण्डका निवन्तेऽङ्ग-
प्रत्यङ्गविभागश्च सूक्ष्मो भवति । ३।२०
त्रतुर्थे सर्वाङ्गप्रत्यङ्गविभागः प्रव्यक्ततरो भवति
गर्भहृदयप्रव्यक्तिभावाच्चेतना-धातुरभिव्यक्तो भवति,
कस्मात् ? तत्स्थानत्वात्; तस्माद्गर्भत्रतुर्थे मास्य-
मिप्रायमिन्द्रियार्थेषु करोति, द्विहृदयां च नारी
दोहदिनोमाचक्षते । ३।२१
I.2.30cd-32 राजसन्दर्शने यस्या दोहदं जायते स्त्रियाः । ibid 3.26-34
अथर्वन्तं महाभागं कुमारं सा प्रसूयते ॥ ३।२६
दुकूलपट्टकोशेयभूषणादिषु दोहदात् ।
अलंकारेषिणं पुत्रं ललितं सा प्रसूयते ॥ ३।२७
आश्रमे संयतात्मानं धर्मशीलं प्रसूयते ।
देवताप्रतिमायां तु प्रसूयते पार्षदोपमम् ॥ ३।२८
दक्षिणे व्यालजातीनां हिंसाशीलं प्रसूयते ॥ ३।२९

गोघामांसाऽशने पुत्रं सुपुप्सुं धारणात्मकम् ।
 गवां मांसे तु वलिनं सर्वक्लेशसहं तथा ॥ ३।३०
 माहिषे दौहदाच्छरं रक्ताक्षं लोमसंयुतम् ।
 वाराहमांसात् स्वप्नालुं शूरं संजनयेत् सुतम् ॥ ३।३१
 मार्गाद्विक्रान्तजङ्घालं सदा वनचरं सुतम् ।
 समरोद्धिनमनसं नित्यभीतं च तंतिरात् ॥ ३।३२
 अतोऽनुक्तेषु या नारी समभिष्याति दौहदम् ।
 शारीराचारशीलः सा समानं जनयिष्यति ॥ ३।३३
 कर्मणा चोदितं जन्तोर्भवितव्यं पुगर्भवेत् ।
 यथा तथा देवयोगाद् दौहदं जनयेद्घृदि ॥ ३।३४

I.2.33-39ab पञ्चमे मासि गर्भस्य मांसशोणितोपचयो भवत्यधिक- Caraka,
 मन्येभ्यो मासेभ्यः, तस्मात्तदा गर्भिणी काश्यंमापद्यते Śā. Sthā
 विशेषेण । ४।२१ 4.21-26

षष्ठे मासि गर्भस्य मांसशोणितोपचयो भवत्यधिक-
 मन्येभ्यो मासेभ्यः, तस्मात्तदा गर्भिणी बलवर्णहानि-
 मापद्यते विशेषेण । ४।२२

सप्तमे मासि गर्भः सर्वभावेराप्याय्यते, तस्मात्तदा
 गर्भिणी सर्वाकारैः क्लान्ततमा भवति । ४।२३

अष्टमे मासि गर्भश्च मातृतो गर्भतश्च माता रसवाहि-
 नीभिः संवाहिनीभिर्मुहुरोजः परस्परत आददाते
 गर्भस्यासंपूर्णत्वात्, तस्मात्तदा गर्भिणी मुहुर्महुर्मुदायुक्ता
 भवति मुहुर्महुश्च ग्लाना ग्लाना तथा गर्भः । तस्मात्तदा
 गर्भस्य जन्म व्यापत्तिमद्भवत्योजसोऽनवस्थितत्वात्;
 तं चैवमभिसम्प्रेक्ष्याष्टमं मासमगण्यमित्याचक्षते
 कुशलाः । ४।२४

तस्मिन्नेकदिवसात्तिक्रान्तेऽपि नवमं मासमुपादाय
 प्रसवकालमित्याहुराद्वादशान्मासात्, एतावान्कालः,
 वैकारिकमतः परं कुक्षाववस्थानं गर्भस्य । ४।२५
 एवमनयाऽऽनुपूर्व्याऽभिनिर्वर्तते कुक्षौ । ४।२६

पञ्चमे मनः प्रतिबुद्धतरं भवति । ३।३५

Suśruta,

षष्ठे बुद्धिः । ३।३६

Śā. Sthā.

सप्तमे सर्वाङ्गप्रत्यङ्गविभागः प्रव्यक्ततरः । ३।३७

3. 35-39

अष्टमेऽस्थिरीभवत्योजः, तत्र जातश्चेन्न जीवेन्नि-
 रोजस्त्वान्नेर्ऋतभागत्वाच्च, ततो वलि मासोदनमस्मै
 दापयेत् । ३।३८

नवमदशमंकादशद्वादशानामन्यतमस्मिन् जायते,
 अतोऽन्यथा विकारो भवति । ३।३९

I. 2. 39 cd-मातुस्तु खलु रसवहायां नाड्यां गर्भनाभिनाडी ibid 3. 40
 40 ab प्रतिबद्धा, साऽस्य मातुराहाररसवोयंमभिवहति ।

तेनोपस्नेहेनास्याभिवृद्धिर्भवति । असंजाताङ्गप्रत्यङ्ग-
 प्रविभागमानिषेकात् प्रभृति सर्वंशरोरावयवानु-
 सारिणीनां रसवहानां तिर्यग्गतानां धमनीनामुपस्नेहो
 जीवयति । ३।४०

I. 2. 44 तत्र गर्भस्य पितृजमातृजरसजात्मजसत्त्वजसात्म्यजानि ibid 3. 43

शरीरलक्षणानि व्याख्यास्यामः । गर्भस्य केशशमश्रु-
 लोमास्थिनखदन्तसिरास्नायुधमनीरेतः — प्रभृतीनि
 स्थिराणि पितृजानि, मांसशोणितमेदोमज्जहृन्नाभिय-
 कृत्प्लीहान्त्रगुदप्रभृतीनि मूत्रानि मातृजानि, शरीरो-
 पचयो बलं वर्णः स्थितिर्हानिश्च रसजानि, इन्द्रियाणि
 ज्ञानं विज्ञानमायुः सुखदुःखादिकं चात्मजानि, सत्त्व-
 जान्युत्तरत्र वक्ष्यामः, वीर्यमारोग्यं बलवर्णो मेघा च
 सात्म्यजानि । ३।४३

I.2.54-55 सात्त्विकास्तु—भानृशंस्यं संविभगरुचिता तितिक्षा ibid 1.19

सत्यं धर्मं आस्तिवयं ज्ञानं बुद्धिर्मेधा स्मृतिर्धृतिरन-
 भिषङ्गश्च,

राजसास्तु—दुःखबहुलताऽटनशीलताऽधृतिरहङ्कार
 आनृतिकत्वमकारुण्यं दम्भो मानो हर्षः कामः क्रोधश्च;
 तामसास्तु—विषादित्वं नास्तिवयमधर्मशीलता बुद्धे-
 निरोधोऽज्ञानं दुर्मेधस्त्वमकर्मशीलता निद्रालुत्वं
 चेति १।१९

खाद्यश्चेतना षष्ठा घातवः पुरुषः स्मृतः । Caraka, Śā.

—च०, शा० स्था० १।१५ Sthā. 1.15

गुणाः शरीरे गुणिनां निर्दिष्टाश्चिह्नमेव च । अर्थाः
 शब्दादयो ज्ञेया गोचरा विषया गुणाः । ibid 1.30

I.2.56 cd. पङ्घातवः समुदिता 'लोक' इति शब्दं लभन्ते; Caraka, Śā.

तद्यथा—पृथिव्यापस्तेजो वायुराकाशं ब्रह्म चाव्यक्त- Sthā. 5.4-5
 मित्येत एव च षड्घातवः समुदिता 'पुरुष' इति शब्दं
 लभन्ते । ५।४

तस्य पुरुषस्य पृथिवी मूर्तिः, आपः क्लेदः, तेजोऽभिसन्तापो, वायुः प्राणो, वियच्छृषिराणि, ब्रह्माऽन्तरात्मा, यथा खलु ब्राह्मो विभूतिलोके..... ५।५*

दशोदकस्याञ्जलयः शरीरे स्वेनाञ्जलिप्रमाणेन यत्तत् ibid 7.16
प्रच्यवमानं पुरीषमनुवध्नात्यतियोगेन तथा मूत्रं रुधिरमभ्यांश्च शरीरघातून्, यत्तत् सर्वशरीरचरं बाह्या त्वग्भिर्भति, यत्तु त्वगन्तरे व्रणमतं लसीकाशब्दं लभते, यच्चोष्मणाऽनुबद्धं लोमकूपेभ्यो निष्पतस्वेदशब्दमवाप्नोति, तदुदकं दशाञ्जलिप्रमाणं, नवाञ्जलयः पूर्वस्याहारपरिणामधातोयतं रस इत्याचक्षते, अष्टौ शोणितस्य, सप्त पुरीषस्य, षट्श्लेष्मणः, पञ्च पित्तस्य, चत्वारो मूत्रस्य, त्रयो वसायाः, द्वौ मेदसः, एको मज्जः, मस्तिष्कस्यार्धाञ्जलिः, शुक्रस्य तावदेव प्रमाणं, तावदेव श्लेष्मणश्चोजस इत्येतच्छरीरतत्त्वमुक्तम् । ७।१६

I.2. 75-77 तत्रायं शरीरस्याङ्गविभागः । तद्यथा—द्वौ बाहू, Caraka,
ab द्वे सक्थिनी, शिरोश्रीवम्, अन्तराधिरिति षडङ्गमङ्गम् । Śā. Sthā.
७।५ 7-5

ibid 77 ab शरीरे षट् त्वचः, तद्यथा—उदकधरा त्वग्वाह्या, ibid 7-4
द्वितीया त्वगसृग्धरा, तृतीया सिद्धमकिलाससम्भवाधिष्ठाना, चतुर्थी दद्रुकुष्ठसम्भवाधिष्ठाना, पञ्चम्यलजीविद्रधिषसम्भवाधिष्ठाना, षष्ठी तु यस्यां छिन्नायां ताम्यत्यन्ध इव च तमः प्रविशति, यां चाप्यधिष्ठानायां जायन्ते पर्वसु कृष्णरक्तानि स्थूलमूलानि दुषिचकित्स्यतमानि चेति षट् त्वचः, एताः षडङ्गशरीरमवतत्य तिष्ठन्ति । ७।४

ibid तस्य खल्वेवंप्रवृत्तस्य शुक्रशोणितस्याभिपच्य- Suśruta,
मानस्य क्षीरस्येव सन्तानिकाः सप्त त्वचो भवन्ति । Śā. Sthā
तासां प्रथमाऽवभासिनी नाम, या सर्ववर्णानवभासयति 4. 3-5
पञ्चविधां च द्यायां प्रकाशयति, सा श्रीहेरष्टादशभागप्रमाणा सिद्धमपद्यकण्टकाधिष्ठाना; द्वितीया लोहिता नाम, तृतीया श्वेता नाम, चतुर्थी ताम्रा नाम, पञ्चमी वेदिनी नाम, षष्ठी रोहिणी नाम, सप्तमी मांसधारा नाम । ४।३

कला खल्वपि सप्त संभवन्ति धात्वाशयान्तर-
मर्यादाः । ४।४

यथा हि सारः काष्ठेषु छिद्यमानेषु दृश्यते । Suśruta, Śā.
तथा धातुर्हि मासेषु छिद्यमानेषु दृश्यते ॥ ४।५ Sthā 4-5

I.2. 81-82 वाताशयः, पित्ताशयः, श्लेष्माशयो, रक्ताशयः, ibid, 4.5
ab आमाशयः, पक्वाशयो, मूत्राशयः, स्त्रीणां गर्भाशयोऽष्टम इति । ५।७

ibid 88-90 मांससिरास्नायवस्थिजालानि प्रत्येकं चत्वारि ibid, 5,11
चत्वारि, तानि मणिवन्धगुल्फसंश्रितानि परस्परनिवद्धानि परस्परसंश्लिष्टानि परस्परगवाक्षितानि चेति, यंगवाक्षितमिदं शरीरम् । ५।११

ibid 92 सङ्घातस्तु दशोत्तरे द्वे शते; तेषां शाखा ibid,
स्वष्टषष्टिः, एकोनषष्टिः कोष्ठे, ग्रीवां प्रत्यूष्व 5. 28-32
अशोतिः । ५।२८

त एते सन्धयोऽष्टविधाः—कोरोल्लखलसामुद्ग-
प्रतरतुन्नसेवनीवायसतुण्डमण्डलशङ्खावर्ताः । तेषा-
मङ्गुलिमणिवन्धगुल्फजानुकूर्परेषु कोराः सन्धयोः,
कक्षावङ्क्षणदर्शनेषु ललाः, अंसपीठगुदभगनितम्बेषु
सामुद्गाः, ग्रीवापृष्ठवंशयोः प्रतराः, शिरः कटोकपालेषु
तुन्नसेवन्धः, हनोरुभयतस्तु वायसतुण्डः, कण्ठहृदय-
नेत्रलोमनाडीषु मण्डलाः, श्रोत्रशृङ्गाटकेषु शङ्खा-
वर्ताः । तेषां नामभिरेवाकृतयः प्रायेण व्याख्याताः ।
५।३२

I.2. 94 ab अस्थनां तु सन्धयो ह्येते केवलाः परिकीर्तिताः । ibid, 5. 33
पेशीस्नायुसिराणां तु सन्धिसङ्ख्या न विद्यते ॥ ५।३३

ibid 98cd. अपत्यपथे चतस्रः—तासां प्रसृतेऽभ्यन्तरतो द्वे, मुखा- ibid, 5. 51
श्रिते बाह्ये च वृत्ते द्वे, गर्भच्छिद्रसंश्रितास्तिस्रः,
शुक्रार्तवप्रवेशिन्यस्तिस्र एव । पित्तपक्वाशययोर्मध्ये
गर्भशय्या, यत्र गर्भस्तिष्ठति । ५।५१

ibid. शङ्खनाभ्याकृतियोनिस्रयावर्ता सा प्रकीर्तिता । ibid, 5.

99-100 तस्यास्तृतीये त्वावर्ते गर्भशय्या प्रतिष्ठिता ॥ ५।५५ 55-56
यथा रोहितमत्स्यस्य मुखं भवति रूपतः ।
तत्संस्थानां तथारूपं गर्भशय्यां विदुर्बुधाः ॥ ५।५६

जृम्भितशुद्धसितकथितरुदितादीन् विशेषामभिवहन्तः शरीरं धारयन्ति । तास्तु हृदयमभिप्रपन्नास्त्रिधा जायन्ते, तास्त्रिंशत् । तासां तु वातपित्तकण्ठशोणित-रसान् द्वे द्वे वहतस्ता दश शब्दरूपरसगन्धानष्टाभि-गृह्णीते, द्वाभ्यां भाषते, द्वाभ्यां घोषं करोति, द्वाभ्यां स्वपिति, द्वाभ्यां प्रतिबुध्यते, द्वे चाश्रुवाहिण्यो, द्वे स्तन्यं स्त्रिया वहतः स्तनसंश्रिते, ते एव शुक्रं नरस्य स्तनाभ्यामभिवहन्तः, तास्त्वेतास्त्रिंशत् सविभागा व्याख्याताः । एताभिरूर्ध्वं नाभेरुदरपार्श्वपृष्ठोरः स्कन्धश्रीवावाहवो धारयन्ते याप्यन्ते च । ६।४

I.2.110-113 उर्ध्वगमास्तु कुर्वन्ति कर्माण्येतानि सर्वशः । ibid, 9.5-8

अधोगमास्तु वक्ष्यामि कर्म तासां यथायथम् ॥ ९।५

अधोगमास्तु वातमूत्रपुरीषगुक्रातंवादिन्यधो वहन्ति ।

तास्तु पित्ताशय.....व्याख्याताः ॥ ९।६

अधोगमास्तु कुर्वन्ति कर्माण्येतानि सर्वशः ।

तिर्यग्गाः संप्रवक्ष्यामि कर्म चासां यथायथम् ॥ ९।७

तिर्यगानां तु चतसृणां धमनीनामेकंका शतधा सहस्रधा

चोत्तरोत्तरं विभज्यन्ते तास्त्वसङ्ख्येयाः, ताभिरिदं

शरीरं गदाक्षितं विवद्धमाततं च, तासां मुखानि

रोमकूपप्रतिबद्धानि, यः स्वेदमभिवहन्ति रसं चाभितर्प-

यन्त्यन्तर्बहिश्च, तेरेव चाभ्यङ्गपरिषेकावगाहालेपन-

वीर्याप्यन्तःशरीरमभिप्रतिपद्यन्ते त्वचि विपक्वानि,

तेरेव च स्पर्शं सुखमसुखं वा गृह्णाति, तास्त्वेताश्च-

तस्रो धमन्यः सर्वाङ्गताः सविभागा व्याख्याताः ॥ ९।८

ibid 116 b नव स्नायुशतानि, सप्त सिराशतानि, द्वे धमनीशते, Caraka,

चत्वारि पेशीशतानि, सप्तोत्तरं मर्मशतं, द्वे पुनः सन्धि- Śa.Sthā7.15

शते, त्रिंशत्सहस्राणि नव च शतानि षट्पञ्चाशत्कानि

सिराधमनीनामणुशः प्रविभज्यमानानां मुखान्परिमाणं,

तावन्ति चैव केशमश्रुलोमानीत्येतद्यथावत्संख्यातं त्वक्

प्रभृति दृश्यम्, अतः परं तर्क्यम्; एतदुभयमपि न

विकल्प्यते प्रकृति-भावाच्छरीरस्य । ७।१५

APPENDIX II

THE RELATIONSHIP OF THE PSYCHOPHYSICAL CENTRES TO MUSIC

The author has specifically mentioned the particular psychophysical centres and their particular petals that are positively or negatively related to the cultivation of musical arts. The following chart illustrates this relationship and also presents the whole picture at a glance.

Psychophysical Centres as Related to Music

| S. No. | Name of Psychophysical Centre | No. of Petals | S. No. of Petals | Fruits attendant upon the petals | Relation to Music |
|--------|---|---------------|---|--|-------------------|
| 1. | Foundational Cycle (<i>Ādhāra-cakra</i>) | 4 | 1 2 3 4 | Supreme bliss Spontaneous happiness Heroic joy Divine unity | Non-conductive |
| 2. | Self-abiding Cycle (<i>Svādhiṣṭhāna-cakra</i>) | 6 | 1 2 3 4 5 6 | Courtesy Curiosity Cruelty Freedom from pride Stupor Disrespect and distrust | —do— |
| 3. | Navel Cycle (<i>Maṇipūraka-cakra</i>) | 10 | 1 2 3 4 5 6 7 8 9 10 | Dreamless sleep Craving Jealousy Fault finding nature Bashfulness Fear Hatred Stupidity Impropriety Dejection | —do— |

| | | | | |
|--|----|--------|-----------------------------------|----------------|
| 4. Cycle of the unmanifest (<i>Anāhata-cakra</i>) | 12 | 1 | Freedom from fickleness | Conductive |
| | | 2 | Clear thinking | Non-conductive |
| | | 3 | Repentance | Non-conductive |
| | | 4 | Hope | Destructive |
| | | 5 | Light | Non-conductive |
| | | 6 | Worry | Destructive |
| | | 7 | Desire for warding off evil | Non-conductive |
| | | 8 | Equanimity | Conductive |
| | | 9 | Vanity | Non-conductive |
| | | 10 | Mental instability | Destructive |
| | | 11 | Discernment | Conductive |
| | | 12 | Will | Conductive |
| 5. Cycle of purity (<i>Viśuddhi-cakra</i>) | 16 | 1 | <i>Praṇava</i> | Non-conductive |
| | | 2 | <i>Udgītha</i> | " |
| | | 3 | <i>Humphāḍa</i> | " |
| | | 4 | <i>Vaṣaṭ</i> | " |
| | | 5 | <i>Svadhā</i> | " |
| | | 6 | <i>Svāhā</i> | " |
| | | 7 | <i>Namaḥ</i> | " |
| | | 8 | Nectar | Conductive |
| | | 9-15 | The seven tones <i>ṣaḍja</i> etc. | " |
| | 16 | Poison | Destructive | |
| 6. <i>Lalanā-cakra</i> | 12 | 1 | Arrogance | " |
| | | 2 | Haughtiness | Non-conductive |
| | | 3 | Affection | " |
| | | 4 | Sorrow | Destructive |
| | | 5 | Agony | " |
| | | 6 | Greed | Non-conductive |
| | | 7 | Disenchantment | " |
| | | 8 | Emotional excitement | " |

| | | | | |
|--|----|----|---------------------------|----------------|
| | | 9 | The basic urge for living | " |
| | | 10 | Devotion | Conductive |
| | | 11 | Satisfaction | " |
| | | 12 | Cleverness | Non-conductive |
| 7. Cycle of the supreme Command (<i>Ājñā-cakra</i>) | 3 | 1 | Sattva (purity) | Non-conductive |
| | | 2 | Rajas (activity) | |
| | | 3 | Tamas (dullness) | |
| 8. The cycle of the mind (<i>Manas-cakra</i>) | 6 | 1 | Dreams | —do— |
| | | 2 | Palatal enjoyment | |
| | | 3 | Olfactory sensation | |
| | | 4 | Perception of form | |
| | | 5 | Touch | |
| | | 6 | Sound | |
| 9. Cycle of the moon (<i>Soma-cakra</i>) | 16 | 1 | Grace | —do— |
| | | 2 | Forgiveness | |
| | | 3 | Straightforwardness | |
| | | 4 | Forebearance | |
| | | 5 | Detachment | |
| | | 6 | Patience | |
| | | 7 | Cheerfulness | |
| | | 8 | Mirth | |
| | | 9 | Horripilation | |
| | | 10 | Tears of fixed gaze | |
| | | 11 | Stability | |
| | | 12 | Profundity | |
| | | 13 | Endeavour | |
| | | 14 | Purity of heart | |
| | | 15 | Generosity | |
| | | 16 | One pointedness | |

10. Thousand 1000 Immortality Most conducive
petalled Lotus
(*Sahsrāra-cakra*)

It may be observed from the above chart that of the ten psychophysical centres mentioned, only four are said to be related to the cultivation of musical arts, wholly or partly, positively or negatively. In the terms of the chart, the centres or the petals not related to music positively or negatively are described as non-conductive. The centres or petals that are helpful in the advancement of musical arts are described as conducive and those of them that are harmful are described as destructive. This has been done in view of the author's statement (vide 144c-145b) that concentration on any other centres or petals is not helpful.

The first three centres are not related to advancement in music, probably because these centres are related to gross manifestation (cf. Sir John Woodroffe's views cited in the comments on 124c-126b ante). The next three centres viz. the cycle of the unmanifest, the cycle of purity and *Lalanā cakra* are partly related to musical arts. These three centres are located in the heart, the throat and the back of the neck which exactly correspond (except for the last that corresponds roughly) to the situation of the three registers of human voice, viz. the heart, the throat and the head. The next three centres are related to the mind and its powers and functions, while the last one viz. *Sahasrāra* is the gateway to supreme bliss and immortality; and consequently, concentration on this centre is considered to be wholly beneficial to the cultivation of musical arts. Thus, six of the ten centres are non-conductive, three partly conducive and partly non-conductive and one wholly conducive.

It will be interesting to observe the fruits of concentration on particular petals as conducive and destructive in terms of the positive and the negative.

The positive and the negative fruits of concentration related to Music.

| Sl. No. | Psychophysical Centre | No. of petals | Positive fruits of concentration | No. of petals | Negative fruits of concentration | Total No. of related petals |
|---------|---|---------------|----------------------------------|---------------|----------------------------------|-----------------------------|
| 4 | Cycle of the unmanifest (<i>Anāhata-cakra</i>) | 1 | Freedom from fickleness | 4 | Hope ¹ | |
| | | 8 | Equanimity | 6 | Worry | 7/12 |
| | | 11 | Discernment | 10 | Mental instability | |
| | | 12 | Will | | | |
| 5 | Cycle of purity (<i>Viśuddhī-cakra</i>) | 8 | Nectar | | | |
| | | 9-15 | Seven Tones | 16 | Poison | 9/16 |
| 5 | <i>Lalanā-cakra</i> | 10 | Devotion | 1 | Arrogance | 5/12 |
| | | 11 | Satisfaction | 4 | Sorrow | |
| | | | | 5 | Agony | |
| 10 | <i>Sahsrāra</i> | | | | | full |

Shorn of its metaphorical framework, the whole scheme seems to suggest that for the cultivation of musical arts one should concentrate on the positive qualities and avoid paying attention to the negative qualities as shown above. This abstract makes the whole idea intelligible.

1. Hope has been described as destructive perhaps because hope and disappointment go together.

APPENDIX III

THE CONCEPT OF ŚRUTI AS RELATED TO SVARA*

The concept of *śruti* as related to that of *svara* forms the very basis of understanding the *grāma-mūrccanā* system, as originally propounded by Bharata, expounded by Maṭaṅga and represented by Abhinavagupta, Śārṅgadeva and the subsequent writers such as Kumbhā etc. It seems that historically the perception of *svara* is prior to that of *śruti*, and that the concept of *śruti* was necessitated by the need for an adequate apprehension, analysis and appreciation of tonal phenomenon, both for the sake of understanding and for an effective and creative endeavour. Music is as old in the history of civilization, as speech, if not older; and its significance in the development of human personality from prehistoric times is of no less importance; for, the revelation of the Vedic hymns was almost immediately accompanied with the need for their employment in the sacrificial form, giving rise to *Sāmagāna*. Tracing the origin of *Nāṭyaśāstra*, Bharata states that the creator "extracted the *pāṭhya* (verbal text) from the *Rgveda*, *gīta* (music) from the *Sāmaveda*, *abhinaya* (action) from the *Yajurveda* and *Rasa* (aesthetic delight) from the *Atharvaveda*". And it was in the perspective of the origin of dramatic arts, that the phenomenon of music and dance was first comprehended. Consequently, aesthetic delight was recognised at the outset as the distinguishing characteristic of musical sound. Therefore, when a scientific study of music was first made, prevalent practice and the natural perception of tone on the basis of delightfulness formed the primary data for investigation, systematic

* Paper read by Dr. R. K. Shringy at the annual conference of the Madras Music Academy, Madras, Dec., 1972.

१—अप्राह पाठ्यमुवेदात् सामस्यो गीतमेव च ।

यजुर्वेदादभिनयान् रसानर्थवणादपि ॥१७॥

Nāṭya Śāstra Ka shi Ed. 1.17.

formulation and adequate comprehension. It is quite in this context that Bharata's statement—"Tones (*svara-s*) are organised into the *grāma* through *jāti-s* and *śruti-s*"—becomes significant. Thus what was spontaneously perceived in the *jāti-gāna* was tonal movement i. e., the *svara-s*, which after an analytical investigation were organised into *grāma* on the basis of their *śruti*-content. So, we find that the concept of *śruti* was formed as a means of precisely measuring, relating or comprehending pitch relations spontaneously perceived as tones. >

That the tones are spontaneously perceived is affirmed by all the musicologists right from Maṭaṅga who says, "Because it is perceptible by itself, it is called *svara*".^३ Since delightfulness was already implied as the essential quality of tone, Śārṅgadeva, improving upon the definition, as it were, made it explicit when he said: "Immediately consequent upon *śruti*, creamy and resounding, the sound that delights the listener's mind by itself, is called *svara*."^{३a}

The essential fact is that whereas *svara* is given to spontaneous perception, *śruti* is intellectually conceived subsequently for organising the *svara-s* into a perceptible scale called *grāma*. This has been done on the basis of certain observable facts; but since those facts can be observed only by trained ears, the question whether this concept has any objective validity or not always keeps on hanging fire. Another reason for the controversy raised on this point is the fact that the concept is not almost as universal as the concept of tone obtaining in the various systems of music in the world today. It is obviously peculiar to Indian Music, specially the ancient Indian music; for, even in India there

२—जातिभिः ध्रुतिभिस्त्वेव स्वरा ग्रामत्वमागताः ।

N. S., K. ed. 20.5.

३—स्वयं गो राजते यस्मात् तस्मादेव स्वरः स्मृतः ।

Bṛhaṅdeśi.

३ ए—ध्रुत्यनन्तरभावो यः स्निग्धोऽनुरणनात्पकः ॥२४॥

स्वतो रंजयति श्रोतुचितं स स्वर उच्यते ॥२५॥

Saṅgīta-ratnākara I. 32.4-25

are people who think that they can easily do away with the concept of *śruti* altogether and yet be able to explain the structure and the technique of modern Indian music. Strange as it might seem, *śruti* does not find any significant mention in its technical sense in the Pauranic tradition. *Grāma*, *mūrchanā*, *jāti* and *svara* etc. constitute musicological terminology for the *Vāyu Purāṇa*, *Mārkaṇḍeya Purāṇa* and the *Viṣṇudharmottara Purāṇa*.⁴ This would suggest that there had ever been two different traditions of musicologists with reference to the concept of *śruti*—one considering it as the pivot of *grāma-mūrchanā* system and the other ignoring it completely.

This does not, however, mean that the concept of *śruti* has absolutely no relevance to Indian music today, but this view rather points out the necessity of a fresh inquiry into the true significance of the concept of *śruti*; and this can be done by investigating into the relationship of *śruti* and *svara*, and thereby determining the true function of *śruti* in the *grāma* system. Such an enquiry may enable us to reassess the value of the concept in its proper perspective.

Indeed, a lot of work has been done to explain and to reinterpret the relevance and validity of the concept of *śruti* in the context of Indian music, in the recent past; but, the subject is so abstruse that any attempt from a different angle can always be considered helpful. The subject is indeed multidimensional, and there are many intriguing questions challenging our attention. For example, we find that the authors of medieval India have allocated different number of *śruti-s* to the same *svara-s*; or, there is enough scope for studying the outlook of ancient writers on music such as Bharata, Dattila and Matāṅga etc. to formulate the right opinion regarding the *śruti-s* being equal or unequal. These questions are quite formidable and merit an independent inquiry; and moreover, all the secondary questions, such

4—Alain Danielou, Texts des Purāṇa Sur la Theorie Musicale.

as these, can be satisfactorily answered only when the fundamental concepts are properly understood. It is, therefore, intended here to bring out the significance of the concept of *śruti* as related to *svara* by studying its function and its relationship to *svara* as expounded in the traditional works of Indian music. We shall first try to arrive at a tentative definition of the two terms and then arrive at a conclusion by investigating their relationship.

1. The concept of Śruti:

The word *śruti*, as it is well-known, is derived from the Sanskrit root *śru*, to hear, etymologically, by Matāṅga⁵ as well as Śāringadeva.⁶ “*Śrūyate-iti-śruti* i. e., that which is heard is *śruti*. Now, what is it that is heard? Does it imply that whatever is audible, musical or unmusical, is *śruti*? or does *śruti*, in whatsoever general terms it might be defined, have a particular signification? Bharata speaks of *śruti* in the context of the constitution of *grāma*; so we have to look to Matāṅga and Śāringadeva, to answer this question; for, even Abhinavagupta echoes Bharata when he says: “There are two *grāma-s*, *śaḍja-gārma* and *madhyama-grāma*; and twentytwo *śruti-s* are established here, in one tone-cycle (i. e., *saptaka*)”.⁷ Incidentally, it may be noted that he too considers that the function of *śruti* is to constitute *grāma*.

Matāṅga seems to present the concept of *śruti* in a systematic way, for obviously in his time this was perhaps the burning issue in the field of musicology. He begins with the literal meaning of the term; ‘*Śrūyante-iti śrutayah*’, the *śruti-s* are so called because they are heard. So primarily, *śruti* to him, denotes sound, the object of hearing. Then he refers

5—श्रवणार्थस्य घातोः क्लृप्तप्रत्ययं च सुसंश्रुते ।

श्रुतिशब्दः प्रसाध्योऽयं शब्दज्ञः कर्मसाधनः :

Bṛhaddeśi.

6—श्रवणात् श्रुतयो मताः

Saṅgīta-ratnākara I.3.8.

7—अथ द्वौ ग्रामौ षड्जग्रामो मध्यमग्रामश्चेति ।

अन्नाश्रिता द्वाविंशतिश्रुतयः स्वरमण्डलसाधिताः ॥

Abhinavabhāratī, Baroda Ed. p. 15.

to the fact that *śruti* is either considered to be one or many*, implying that it all depends on the connotation of the term; for, the word *śruti* was quite differently understood by different scholars or schoolmen as it appears from his discussion with regard to the number of *śruti-s*.

To Maṭaṅga, therefore, *śruti*, as understood in its primary sense of 'the audible sound', is one only.⁹ And he supports his contention by quoting Viśvāvasu who says that, "because it is perceptible by the sense of hearing, sound only can be *śruti*."¹⁰ But Viśvāvasu does not seem to be limiting the connotation of the word *śruti* to its primary meaning; rather he lends it a meaning which makes the word technical in the field of musicology; for, he says that *śruti* is twofold according to as it is associated with the standard notes and the intervening (*antara-svāra-s*) ones.¹¹ But those who consider the *śruti* to be threefold either on the ground of three registers or threefold perceptual insensitivity as quoted by Maṭaṅga¹² do not seem to make an advance on the one *śruti* theory from the musicological point of view, since the first opinion makes no important distinction as the very same notes are involved in all the three registers; and the second view relates to the quality of voice i. e. the timbre and not the pitch. However, the theory referred to by him, that considers *śruti* to be fourfold on the basis of the different physiological conditions makes some advance upon the threefold *śruti* view in so far as it affects the whole structure of

८—सा चकानेका वा ।

Bṛhaddeśi.

९—तत्रैकैव श्रुतिरिति ।

ibid.

१०—श्रवणेन्द्रियग्राह्यत्वाद् ध्वनिरेव श्रुतिर्भवेत् ।

ibid.

११—सा चकामि द्विधा ज्ञेया स्वरान्तरविभागतः ॥

ibid.

१२—केचित् स्थानत्र(य)योगात् त्रिविधां श्रुतिं प्रपद्यन्ते ।

अपरे त्विन्द्रियवैगुण्यात् त्रिविधां श्रुतिं मन्यन्ते ।

इन्द्रियवैगुण्यं च त्रिविधं सहजं दोषजमभिघातजं चेति ।

ibid.

musical sound. But yet it does not seem to depart absolutely from the primary meaning of the term *śruti* and therefore fails to accord distinct individuality to different *śruti-s*.

Bharata has spoken of three types of tones viz., having four *śruti-s*, three *śruti-s*, and two *śruti-s*, in the context of wind instruments with reference to the technique of playing upon them.¹³ Presumably on this basis, some flutists, according to Maṭaṅga, consider *śruti-s* to be nine only. We are not presently so much concerned with the actual and true number of *śruti-s* as with the true significance and the actual function of *śruti-s*. It is obvious that to the flutists only nine *śruti-s* were real, for they could produce the notes of the octave with this understanding. Therefore, once again we find that *śruti-s* are conceived in order to produce the *svāra-s* accurately and for obtaining their modified forms such as *antara* and *kakali* referred to earlier in the two-*śruti* view. But, however, apart from the technique of the wind instruments, Bharata himself implies twentytwo *śruti-s* in a scale; for there are three notes with four *śruti-s*, two with three and two with two *śruti-s* each in *śaḍjagrāma*.

It is interesting in this context to consider the view of Dattila whose work is believed to be earlier than Maṭaṅga and who is considered to be a close follower of Bharata. He says: "Higher and higher notes in the high (*tāra-sthāna*) (register) are on the *viṇā* lower and lower. Thus the differences of sound are called *śruti* because of their auditive perceptibility. With some of these (*śruti-s*) one sings in all songs. Those (*śruti-s*), however, which have become notes will be considered here."¹⁴ Thus, auditive perceptibility of differences in

१३—द्विकत्रिकचतुष्कास्तु ज्ञेया वंशगतः स्वराः ।

(कम्प्यमानार्धमुक्ताश्च व्यक्तमुक्तास्तथैव च ॥)

Nāṭyaśāstra (G. O. S.) 3.2.

१४—उत्तरोत्तरतारस्तु वीणायामधरोत्तरः ।

इति ध्वनि विषोषास्ते श्रवणाच्छ्रुतिसंज्ञिता ॥९॥

तेभ्य काञ्चिदुपादाय गीयन्ते सर्वगोतिषु ।

आन्द्रियन्ते च मे तेषु स्वरत्वमुपलभ्यते ॥१०॥

Dattilam.

T pitch forms the essential characteristic of the tonal perception called *śruti* by the ancients. And then it is also notable that in a given scale of notes, it is some of these very minute intervals that are recognised as *svara-s*. This view enlightens us regarding the relation of *śruti* and *svara*.

Then Mataṅga quotes Kohala, who is even earlier than Dattila. He affirms that *śruti-s* are twentytwo in number, also considered as sixtysix by some : or otherwise, they are infinite.¹⁵ Thus, as far as the difference of pitch as determined by auditive perceptibility is concerned, the one prominent view held by distinguished musicologists was that of twentytwo *śruti-s*; because all other views are either partially applicable or not based on pitch-value, and therefore non-musical in their orientation. The view of sixtysix *śruti-s* is only a projection of the former and is obviously superficial. Alternatively, if *śruti* is a just perceptible difference in pitch, there can hardly be any limit to such sounds. So, the view maintaining an infinity of *śruti-s* called for a need for a clear and precise definition of the term in the essential sense of perceptible difference in pitch. Of course *śruti-s* cannot be considered infinite, for the function of *śruti-s* is to constitute the musical scale and to determine the position of the seven tones in it; so if the *śruti-s* have to discharge this function, their number has to be limited; then only they can be used as units of a group.

But, how is it that the *śruti*-interval came to be perceived ? i. e. in other words, does the name *śruti* correspond to an objective perception ? Kumbhā, who is in a way, a commentator of Śārṅgadeva, has pointed out two different aspects of the connotation of the word *śruti*. He says, the word *śruti* can be derived from the root *śru*, either as an abstract noun referring to listening, or as a verbal noun, referring to the object of listening. In other words, *śruti*

१५—द्विविधं किंदिदुदाहरन्ति (श्रुतीः) श्रुतिज्ञानविचारदक्षाः ।

पदषष्टिभिन्नाः खलु केचिदासामानन्त्यमेव प्रतिपादयन्ति ॥

Bṛhaddeśī.

also denotes a perceivable difference of pitch. This was derived in the first instance in the form of the difference of pitch-value between the Pañcama of *Ṣaḍja-grāma* and that of *Madhyama-grāma* by Bharata.¹⁶ And this difference of auditive perception was designated by him as *Pramāṇa-śruti*. In other words, in the perception of that difference in pitch value, he found a proof of the perceptible existence of a tonal factor that constituted tones or determined their position in the scale. Consequently, Kumbhā, echoing Abhinavagupta, points out that the function of *śruti* is to distinguish in-between the *grāma-s*. Mataṅga perceives in this difference of pitch a measure of tonal content called *śruti*. Thus the discovery of the *pramāṇa śruti* set the ball rolling, and it was found that all the tones were actually to be arrived at through two, three or four perceptible factors, bringing the total number of such tonal factors to twentytwo in a scale. Regarding the objective validity of the concept of *śruti* Dr. B. C. Deva has referred to a laboratory experiment conducted by Ellis, in England in 19th Century. The experiment proved that, "the number of rough steps of pitch which can be distinguished in an octave are about 22;"¹⁷ and also "that the difference in any sensation which can be perceived depends on the sensation already present in a person." The effect of this (accumulated sensation) was known to our ancients, or was taken into account in formulating the concept of *śruti*. Abhinavagupta calls it "*Kramika-śrutijanitasamskāra-viśeṣa*." Śārṅgadeva is also aware of this process, when he himself poses the question, "Indeed if such *śruti-s* as the fourth etc. are admitted to be the cause of *svara-s* how can the other *śruti-s* such as third etc. be considered as their cause ?", to which he answers, "Such a *śruti* whether fourth or third etc., is determined only with reference to

१६—अथ प्रयोजनं तावत्प्रोच्यते श्रुतिरूपणे ।

विभागो ग्रामयोर्ग्रामादेतत् ज्ञानेन जायते ॥१०॥

Saṅgita-rāja II. 1.1.90.

१७—B. C. Deva, Psycho-acoustics of Music and Speech, 1967; pp. 122-

123.

the preceding *śruti-s*; therefore, they too constitute the cause of *svara-s*.”¹⁸

Following Maṭaṅga in spirit, Śārngadeva too considers the *śruti-s* to be the modifications of musical sound i. e. *nāda*.¹⁹ So, *śruti* for him is essentially a musical sound. We can see the crystallisation of the concept. Another evidence of this process is to be found in Śārngadeva's statement to the effect that *nāda* arising from the navel is differentiated through twentytwo *nāḍi-s*, situated in the region of the heart, the throat and the head. It is not understood in what sense he uses the term *nāḍi*. In the Ayurvedic terminology, it is generally identified with veins, arteries or nerves etc. So, if by *nāḍi-s* he implies observable objects, then such twenty-two *nāḍi-s* have yet to be identified by physiology. However, if he implies some yogic meaning, then obviously it would ever remain a subjective phenomenon. What is quite apparent is an attempt at fixing the number of *śruti-s* at twentytwo on a tangible basis to set the controversy at rest beyond all doubt. And perhaps he did succeed in his endeavour to do so; since no subsequent writer seems to have challenged him. After him twentytwo *śruti-s* are almost taken for granted.

It is noteworthy that Bharata enumerates the concept of *śruti* in the context of subjects related to *viṅḍā*, but not among those related to the human instrument.^{20a} This implies that *śruti* is one of those subjects of musicology that can be well demonstrated and best exposed exclusively with the aid of *viṅḍā*. Therefore, Śārngadeva's graphic description of twentytwo *nāḍi-s* in order to show the genesis of

१८—ननु श्रुतिश्चतुर्ध्यादिरस्त्वेवं स्वरकारणम् ॥२५॥

त्रयादीनां तत्र पूर्वासां श्रुतीनां हेतुतां कथम् ।

ब्रूमस्तुर्थातृतीयाऽऽदिः श्रुतिः पूर्वाभिकाङ्क्षया ॥२६॥

निर्धारितेऽतः श्रुतयः पूर्वा अप्यत्र हेतवः ।

Saṅgīta-ratnākara I. 3. 25-27.

१९—तस्य (नादस्य) द्वाविंशतिभेदाः ।

ibid I. 3.8.

१९९—Nāṭyaśāstra 28. 14-15 (Baroda Ed.)

śruti-s seems to highlight the Tāntric influence on musicology, the seeds of which can be found even in Maṭaṅga. Tantra combined Yoga, and the concept of *nāda* is closely related to the philosophy of Tantra and the practice of *Mantra-yoga*. Probably this can explain Śārngadeva's hypothesis.

Although, as already stated, Viśvāvasu and Maṭaṅga both consider 'Dhvani' i. e., mere 'sound' to be the essential content of *śruti*, Śārngadeva considers *nāda* i. e., musical sound to be the substance. However, it is worthwhile to note that he does not consider each *śruti* to be a musical sound; what he implies is that, *śruti-s* do give rise to *svara-s* that are essentially delightful, resonant etc. This implication is clearly brought out by his commentator, Kallinātha while he comments on his definition of *śruti* viz., "*Śravaṇāt śrutayo mataḥ*" i. e., "*śruti-s* are so called because of their auditive perceptibility. He says : "Auditive perceptibility is common to such extensive sounds as well as *svara* and *tāna* etc., that are essentially resonant apart from *śruti*; so therefore, here indeed *śruti* signifies only the sound that is produced by the blow of wind etc. in the very first instant, which is free from resonance."²¹ Thus, we find that *śruti* is conceived as a factor of musical sound in the form of just perceptible difference of pitch, that is free from resonance. So according to Śārngadeva, as interpreted by Kallinātha, "*śruti* signifies a pitch value which contributes to the musicality of tone, and is yet by itself devoid of tonal colour". Now, since he recognises twentytwo such pitch values, as indeed they have been recognised by Bharata, Dattila, Maṭaṅga and Abhinavagupta before him, it is also implied that the audible musical sound free of resonance, that a *śruti* is, should be capable of individual perception and recognition, and therefore of being

२०—यद्यपि श्रवणयोग्यत्वमनुरणनात्मनः स्वरतानादिरूपेण

दीर्घदीर्घस्यापि ध्वनेर्विद्यते, तथा यत्र माहतायाहृत्यनन्तरोत्पन्नप्रथमक्षणवर्ती श्रवणमात्र-योग्यध्वनेरेव श्रुतित्वमिति ।

Saṅgīta-ratnākara p. 67 (Adyar Vol. I).

reproduced; for otherwise they cannot be employed consciously. This leads us to the question what the significance of *śruti* is with reference to *svāra*. But before one can investigate that, one must be clear about the concept of *svāra*.

To sum up the deliberation regarding the concept of *śruti*, it may be concluded that, "*śruti* is that audible musical sound which is free from resonance and is capable of being individually perceived, recognised and reproduced." It also follows that there are twentytwo such *śruti*-s in a given scale which are the same in all the three registers.

This very conclusion is corroborated by the process of *Catuhśaraṇā* initiated by Bharata, reshaped by Maṭaṅga and pedantically expounded by Śārṅgadeva. So also Kumbhā has defined very clearly the threefold function of the fourfold string-movement called *Catuh-śaraṇā*. He says, "The delimitation of the number of *śruti* s, graduation of pitch with reference to tones and the comprehension of *kākalī* etc. (constitute) the functions of the string-movements (*śaraṇās*)."²¹ The process need not be restated here; but it confirms, by actual demonstration, the number of *śruti*-s being twenty-two, and also the fact that *śruti*-s are musical sounds just audible.

2. The concept of Svāra

The concept of *svāra* does not confront us with much difficulty; probably, because of the universal recognition of the tones, and also due to the inherent qualities that distinguish it. It has already been pointed out that the concept of *svāra* was as naturally formulated as spontaneously it was perceptible. Dattila, as already pointed out, has said that some of the *śruti*-s are considered as *svāra*-s. If this is read in consonance with Bharata's concept of three types of tones constituted by four, three and two *śruti*-s¹⁸ we are led to

२१—श्रुतीयत्तापरिच्छेदस्तारतम्यं स्वराश्रयम् ।

काकल्यादिपरिज्ञानं सारणानां प्रयोजनम् ॥११५॥

Saṅgīta-rāja II. 1.1.115.

think that some of the *śruti*-s attain the position of *svāra*-s. Thus, although no categorical difference is conceived between *śruti* and *svāra*, it yet remains to be defined in what way they are different, or perhaps they are neither categorically different nor even identical.

Śārṅgadeva has told in a peculiar way, how the *svāra*-s come into being, He says, "From out of the *śruti* s arise the *svāra*-s",²² and this may be read alongwith his statement that all the *śruti*-s pertaining to a particular *svāra* are responsible for its manifestation.¹⁸

Obviously he does not imply that *śruti*-s are the cause and *svāra*-s their effect: the cause having ceased giving room to the effect, and the cause preceding the effect. He seems to suggest that *svāra*-s arise by the cumulative effect brought forward from the preceding *svāra*-s to the 'note-*śruti*' i. e., the *śruti* that becomes the *svāra*; in other words, by *samskāra-pradāna* i. e. by the inheritance of the residual effect. It is notable that *svāra*-s arise out of *śruti*-s in the groups of two, three and four; but they do so only in groups, in other words, no single *śruti* can become or produce a *svāra*.

In fact, Śārṅgadeva's statement is rather vague in so far as it does not pronounce the relationship obtaining between *svāra* and *śruti*, and also because it is capable of being interpreted variously. One can roughly interpret that, as *śruti*-s give rise to *svāra*-s, they are the cause; or for example, one can say that *svāra*-s are different from *śruti*-s, being their product; This however involves the whole question of the nature of relationship in *svāra* and *śruti*, which we shall deal with presently.

Śārṅgadeva defines *svāra*, detailing its different characteristics—"Immediately consequent upon *śruti*, creamy and resounding, the sound that delights the listener's mind

२२—श्रुतिभ्यः स्युः स्वराः

Saṅgīta-ratnākara I. 3.23.

by itself is called *svāra*." Resonance, softness and self-sustained delightfulness are the essential features of *svāra*.

It is also notable that the two commentators of Śārṅgadeva harbour a difference of opinion with respect to the first character of the tone. Kallinātha thinks that in case of *śrūtyanantarabhāvi* (immediately consequent upon the *śruti*) the term *śruti* refers to that particular *śruti* which is capable of resounding into note, and which is technically called *svārasthāna*. Sīṃhabhūpāla, however, would consider the first *śruti* bereft of resonance as *śruti* and the fourth *śruti* giving a rise to resonance, a *svāra*.²⁴

However, the suffix 'bhāvi' in this expression is suggestive of possibility and refers to possible resounding vibrations of a *śruti* and therefore precludes any interpretation to the effect that every *śruti* can resound or be a *svāra*. The difference of opinion between the two commentators leads us to two theories.

- (i) That *svāra* manifests itself as the resounding vibration of the fourth *śruti* of *ṣaḍja*, and therefore *svāra* can be said to be the effect of *śruti* and is therefore to be conceived as different from it.
- (ii) That the fourth *śruti* of *ṣaḍja* is itself *svāra*, since it is capable of resounding.

To Sīṃhabhūpāla, there are four distinguishable sounds, the first three being devoid of resonance and the fourth one being capable of it. Therefore, the resounding *śruti*, for him, is not quite different from *svāra*.

२३—श्रुत्यनन्तरभावी, श्रुतेऽनुश्रुत्यादेर्मास्नाद्याहस्युत्पन्नप्रथमध्वनेरनन्तरं भाव्याविभवनशीलः
S. R. p. 82.

२४—श्रुत्यनन्तरेति । श्रुतेरनन्तरं भवतीति श्रुत्यनन्तरभावी ।
प्रथमतन्मूयामाहृतायां धो ध्वनिरनुरणनशून्य उत्पद्यते स श्रुतिः,
यस्तु ततोऽनन्तरमनुरणनरूपः श्रूयते । स स्वरः ।
ibid.

So, we have two types of *śruti-s*, the resounding *śruti-s* and the unresounding *śruti-s*. R. Sathyanarayan in his paper entitled 'Śruti, the Scallic Foundation' identifies these two types with *svāragata* and *antaragata śruti-s* of Viśvāvasu.²⁵ But, it would be technically more accurate to identify the *śruti-s* merely as *śruti-s* and to refer to other *śruti-s* merely as *svāra-s*. This meaning, however, is essential in establishing a proper understanding of the relationship of *śruti* and *svāra*.

Delightfulness indeed is related directly to resonance that brings about spontaneous perceptibility; and therefore, the tonality of the notes is primarily in resonance. Maṭaṅga derives the word *svāra* from the Sanskrit root *Rāj*, to shine, with the prefix *sva* (itself), meaning that which shines by itself²⁶ i. e., which is spontaneously perceptible and needs no other means to manifest it. He then defines *svāra* as delightful sound²⁷ and cites Kohala in his support to the effect that "colourful sound is known as tone."²⁸ So we have spontaneous perceptibility, delightfulness and resonance (i. e. the overtones, the sound vibrations immediately following the note-*śruti*), and softness as the four essential elements, aspects, or dimensions of *svāra*.

Now the question is, how many of these effects are shared by *śruti*? Spontaneous perceptibility, resonance and delightfulness are positively denied to it, while softness may be attributed to it since it has musical sound for its content. Then, how do these attributes manifest themselves, when *svāra-s* are said to arise from *śruti-s*? One explanation is *Sanskāra-pradāna* i. e. each *śruti* transmits its residual effect to

२५—Sangeet Nāṭak, Śruti the Scallic Foundation—No. 17. p. 62.

२६—राजू दीप्ताविति धातोः स्वशब्दपूर्वकस्य च ।

स्वयं यो राजते यस्मात् तस्मादेश स्वरः स्मृतः ।

Bṛhaddeśi.

२७—रागजनको ध्वनिः स्वरः उच्यते ।

ibid.

२८—ध्वनीरक्तः स्वर स्मृतः ।

ibid.

the next and the attributes of *svāra* arise as a result of the cumulative effect of all the *śrutis* of a note climaxed by the 'note-*śruti*'. Thus, we may conclude that even though no single *śruti* can manifest by itself the attributes of *svāra*, they are never-the-less produced by them cumulatively. *Svāra* is therefore neither identical with, nor different from *śruti*. But *svāra* can however be identified as the sum-total effect of the *śruti-s* of which it is constituted; in other words, a number of *śrutis* together produce the effect which is called *svāra*; or otherwise, a group of *śruti-s* in temporal sequence manifests *svāra*. In that sense, tonality may be conceived as inherent and latent in the *śrutis*, which manifests itself according to the manner of their grouping, just like the atoms coming together to form into a molecule. Each *śruti* may thereby be considered to be charged with the power potency of tonality.

Our ancients have already considered the question of relationship between *śruti* and *svāra* thoroughly; and it will be worthwhile to examine critically the views put forth by different schools.

3. The relation of Svāra and Śruti :

Mataṅga relates five different views with respect to the relation of *śruti-s* to *svāra-s* in the following verse :—

“Of the *śruti-s* (as related to *svāra-s*) they characterise (the relation) as identity, appearance, resultant, transformation and manifestation.”²⁰

(i) Identity :

The contention of this view is that, since there is no need for any spacial tactile relation for perceiving the two, both *śruti* and *svāra* being perceptible through the sense of hearing, they are essentially identical like the relation obtain-

२९—तादात्म्यं च विवर्तित्वं कार्यत्वं परिणामिता ।
अभिव्यञ्जकता चापि धृतानां परिकथ्यते ॥३०॥

ing between the genus and the species.³⁰ Thus, the identity of *śruti* and *svāra*, in this view, is based on the same source of perception and is illustrated through the relation of the general and the particular. Obviously, this view is absurd on the face of it, since all the objects of one and the same sense cannot be so related. Mataṅga rather points out that, since *śruti* and *svāra* are two different concepts and are related as the supporter and the supported, the foundation and the structure, the relation of identity cannot be established.³¹

(ii) Resultant :

If *śruti* and *svāra*, being made of the same material, cannot be related in identity, then perhaps the *śruti-s* can be taken as the cause of *svāra-s*, and *svāra* as the result of *śruti*. This view implies a relation of cause and effect, the effect being different from the cause. Mataṅga illustrates the point by the analogy of a pot being produced from mud with the help of a rod.³² Mud is considered to be the material cause and the rod to be the efficient cause of the pot. Now, it is a well-known fact that the material cause coexists with its effect, and Mataṅga argues that *śruti-s* cannot be conceived as producing *svāra* in this sense as *śruti-s* do not coexist with *svāra*³³; i. e., in other words, *svāra* manifests only after the *śruti* has ceased to be. This contention justifies the inference derived by Kallinātha that tonality lies in the resonance of the

३०—विशेषस्पर्शाङ्गान्यत्वाच्छ्रवणेन्द्रियग्राह्यता ।

स्वरश्रुत्योस्तु तादात्म्यं जातिव्यक्तिरिवानयोः ॥३१॥

३१—नानाबुद्धिप्रसाध्यत्वात् स्वरश्रुत्योस्तु मिश्रता ।

आश्रयाश्रयिभेदाच्च तादात्म्यं जातिव्यक्तिरिवानयोः ॥३२॥

३२—स्वराणां श्रुतिकार्यत्वमिति केचिद् वदन्ति हि ।

मृत्पिण्डदण्डकार्यत्वं घटस्येह यथा भवेत् ॥३३॥

३३—कार्यकारणभावस्तु स्वरश्रुत्योर्न सम्भवेत् ।

कार्येषु विद्यमानेषु कारणस्योपलम्भणात् ॥४०॥

note-*śruti*. Thus, *śruti* and *svāra* cannot be related as cause and effect.

(iii) Appearance

If *śruti* and *svāra* cannot be related as cause and effect, it is obvious that *svāra* is not a product at all; and yet the phenomenon of *svāra* is there : Can we therefore say that *svāra* is only a projected image of the *śruti* just as face is reflected in the mirror?³⁴ The face reflected in the mirror is merely an appearance and has no existence of its own, being the image of the object outside the mirror; but, *svāra* is perceptible by itself; *svāra* therefore belongs to the same order of reality as *śruti*. Mataṅga, therefore, concludes that this view does not accord with facts; for, if a *svāra* is taken to be a projection of *śruti* it cannot in any way be different from it essentially and moreover, the perception of *svāra* would become illusory;³⁵ whereas it is observed in fact that *svāra* is categorically different from *śruti*.

As a matter of fact the appearance theory is based on the *Vivartavāda* of Advaita Vedānta which is concerned with explaining the fact of phenomenal world as a whole; whereas the perception of *śruti* and *svāra* is essentially relative and empirical and cannot therefore be explained in terms of the relationship of the absolute and the relative. However, the essential feature of *Vivartavāda* is that it explains change without admitting any modification in substance. This would accord with Sudhākara's view that the note-*śruti* itself becomes manifest as *svāra*, so that *svāra*, though appearing to be different from *śruti*, is yet no different from it in substance. But, Mataṅga seems to consider the change involved to be substantial as he contributes to the transformation theory.

३४—नराणां न मुखं यद्दृष्टं दर्पणेण विवर्तितम् ।

प्रतिभाति स्वर (स्त) दृक्छुतिष्येव विवर्तितः ॥३२॥

Br. D.

३५—यद्भाणि विवर्तित्वं श्रुतीनां तदसंगतम् ।

विवर्तित्वे स्वराणां हि भ्रान्तिज्ञानं प्रसज्यते ॥३९॥

ibid.

(iv) Transformation :

“No doubt” says, Mataṅga, “*Śruti-s* undergo a substantial transformation in the form of *svāra*, as milk is transformed totally to form into curds.”³⁶ Obviously, in this view, *svāra* is considered to be essentially different from *śruti*. It is only the protagonists of *ārambhavāda* i. e. the *Naiyāyikas* who admit the effect to be different from an inherent cause (i. e. *Samavāyikāraṇa*) which is the same as the material cause. Others admit the effect to be different from an efficient and aggregative (*sāmyoga*) cause. Here Mataṅga seems to be advancing the view that *śruti* and *svāra* are in *Samavāya* relation, for *sāmyoga*, a mere aggregate of *śruti-s*, cannot produce *svāra*, as pointed out by Kumbhā. The *śruti-s* have to be in a particular order of succession in order to produce a *svāra*. Moreover, we cannot have an aggregate of *śruti-s* like a bundle of threads, since they always occur in a temporal sequence. The *samavāya* relation implies that “the effect inheres in the material cause as a quality may be said to do in a substance. The insistence that produced things are not only in time and space but also abide in *dravyas* is noteworthy.”³⁷ If, therefore, *svāra-s* are conceived to be inherent in the *śruti-s*, they could as well be called the manifestation of *śruti-s*.

(v) Manifestation :

Transformation implies the capacity to change, or in other words, a latent possibility. When the latent becomes active, the effect is called its manifestation. So, Mataṅga declares that, “the seven tones called *śaḍja* etc. are ever manifested by the *śruti-s* like a lamp manifesting the objects concealed in darkness.”³⁸ Thus, what is implied in this view is that the *svāra-s* exist in their own right and are highlighted

३६—स्वराता तत्समूहस्य सुतरामप्यसंगता ॥३६॥

Saṅgīta-rāja II 1.1.136.

३७—Hirayanna—The Outlines of Indian Philosophy; p. 239, (1970 ed.)

३८—षड्जादयः स्वराः सप्त व्यज्यन्ते श्रुतिभिः सदा ।

अम्बकारस्थिता यद्वत् प्रदीपेन घटादयः ॥३५॥

Brhaddeśī.

by the *śruti-s*. This viewpoint is however rejected by Kumbhā on the ground that it implies co-existence of the manifest and the manifest, which is in contradiction with the observed fact.

Kumbhā has discussed this relation from the point of view of almost all the schools of Indian philosophy including the Buddhists, but without going into smaller details; what is observed is that all these theories are applied to determine the relation of *śruti* and *svāra* on the basis of change, for all these are the theories of causation attempting to explain the phenomenon of change. The concept of change is fundamentally twofold—one view is that reality is a flux, a perpetual change, and the other view is that reality is eternal; the former view does not in effect admit any cause-effect relation; for it holds the dissolution of one whole to be the creation of another whole, while the latter view admits this relation. The first view is held by the Buddhist and the other is held by the orthodoxy of Hindu Philosophers, in one form or another. The Buddhist view has to be rejected for it precludes the study of all relations; the Hindu view is represented by three important viewpoints viz., i) that creation implies a substantial change, ii) that creation implies transformation or manifestation of the inherent or iii) that creation represents the appearance of the real. The last of these views cannot probably be applied to explaining the relations within the empirical field. So, we are left with only two alternatives viz., that of substantial change and transformation or manifestation.

The theory of substantial change implies that *śruti-s* are evolved into *svāra-s*, while that of transformation implies that *svāra-s* are involved into *śruti-s*. This analysis resolves the problem. There seems to be no categorical difference in the two viewpoints that describe the same relation in different terms, from the two different ends. Therefore, the utility of bringing in these theories for explaining the relations of *svāra* and *śruti* can as well be questioned. As a

matter of fact, *śruti* and *svāra* are no absolute entities and both have musical sound i. e., *nāda* as their substance. So, there is no difference as far as their substance is concerned. Therefore, it will be irrelevant to conceive of any substantial change taking place in-between them. *Nāda*, as modified into twentytwo forms called *śruti-s* variously crystallises to appear as seven tones. Therefore, *śruti-s* arising into different groups in temporal sequence give rise to self-perceptible tones. Since *śruti-s* are not substantially different from *svāra-s*, any attempt at relating them as cause and effect will be irrelevant. To understand the true significance of this relation, one must not lose sight of the fact that fundamentally we are dealing with *nāda*. *Śruti* and *svāra* are only two different forms of *nāda*, related as the digits of the same figure, every digit contributing to the formation of the figure in a spatio-temporal sequence.

Dr. B. C. Deva's definition that, "*Śruti-s* are additive measures of pitch relations in music,"³⁹ seems to highlight the functional aspects of the relation of *śruti* and *svāra*. Aspects of this relation can be defined, but no definition would perhaps be adequate; for *śruti* and *svāra* are related as the constituent parts integrated by a temporal sequence into the dynamic whole, and are neither different from nor identical with each other.

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| | 172 | ह्रस्वकेत्यथ तासां तु | 168 |
| | | हेमन्तश्रीऽमवर्षास्तु | 166 |
| | | ह्रस्वैः स्वरैः स निष्कर्षः | 245 |
| | | | 260 |

ERRATA*

| Page No. | Line No. | Printed as | To be read as |
|----------|----------|---|------------------|
| ix | 25 | gramatical | grammatical |
| xiv | 6 | succedeed | succeeded |
| xxvii | 21 | Jogadekamall | Jagadekamalla |
| 8 | 19 | ऽभत स्तथा | ऽभतरस्तथा |
| 32 | 36 | viaj | viraj |
| 44 | 13 | m ntal | mental |
| 81 | 5 | cycle | chyle |
| 87 | 1 | स्वाधिष्ठान | स्वाधिष्ठान |
| 113 | 9 | world | word |
| 125 | 32 | fixe | fix |
| 126 | 14 | invriable | invariable |
| 139 | 37 | raktikā | ratikā |
| 146 | 9 |7th | 1 7th |
| " | 10 | 8-10 2 | 8-10 3 |
| 149 | 7 | Add... नृपामास्थानुसारित्वादनुवादी तु भृत्यवत् ॥५१॥ | |
| 152 | 30 | षट्जगन्धर ... | षट्जगन्धार० |
| 165 | 4 | गन्धारो ... | गन्धारो... |
| 182 | 10 | rl | ri |
| 221 | 8 | ropped | dropped |
| 226 | 4 | ज्येतिष्टोम.... | ज्योतिष्टोम |
| 232 | 9 | śrutis | śruti |
| 241 | 34 | दीपितो | दीपितो |
| " | 36 | possible give | possible to give |
| 246 | 2 | ममम षषष | ममम पपप षषष |
| 251 | 9 | त्याक्ता.... | त्यक्ता .. |
| 256 | 9 | षषपनि | पषपनि |
| 259 | 1 | 2.0 | 21. |
| " | 19 | vhrases | phrases |
| " | 22 | Humhāra | Humkāra |
| 263 | 6 | विदुर्दुषाः | विदुर्दुषाः |
| 268 | 14 | the r | their |
| 270 | 30 | he | be |
| 281 | 19 | hexatonic | pentatonic |
| " | 36 | sem final | semifinal |

| <i>Page No.</i> | <i>Line No.</i> | <i>Printed as</i> | <i>To be read as</i> |
|-----------------|-----------------|---------------------|----------------------|
| 288 | 1 | <i>nyās</i> | <i>nyāsa</i> |
| 297 | 14 | <i>auḍuaa</i> | <i>auḍuva</i> |
| 307 | 22 | ag-ri | ga-ri |
| | 24 | ag-ri | ga-ri |
| 310 | 30 | <i>āḍava</i> | <i>ṣāḍava</i> |
| 312 | 11 | pa-ri-a | pa-ri-ga |
| 313 | 28 | it-ith | it-with |
| 339 | 9 | शा | पा |
| 340 | 13 | ni | ni |
| 346 | 17 | री | री' |
| 349 | 13 | पा, ... तंरिं | पा ... पंरिं |
| | 17 | ग | गा |
| 350 | 7 | १५ | १६ |
| 357 | 5 | नों नों | नो' नी' |
| 371 | 8 | गन्ध... | गायन्ध० |
| 375 | 4 | सरसग चर्म... | सरसगजचर्म० |
| 383 | 15 | (<i>ru + vam</i>) | (<i>ru + dram</i>) |
| 387 | 28 | अलंकारैषिणं | अलंकारैषिणं |
| 403 | 32 | आन्द्रियन्ते च मे | आन्द्रियन्ते च ये |
| 406 | 20 | subese— | subse— |
| 410 | 30 | श्रुतेभ्रतुर्थादे० | श्रुतेभ्रतुर्थादे० |
| .. | 32 | प्रथमतन्त्रयाम० | प्रथमतन्त्रयाम० |
| 415 | 1 | Transformatton | Transformation |